

Draft
General Management Plan
Environmental Impact Statement

May 2002

**ROCK CREEK PARK
AND THE
ROCK CREEK AND
POTOMAC PARKWAY**

Washington, D.C.

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National Park Service, Rock Creek Park
Superintendent
3545 Williamsburg Lane NW
Washington, D.C. 20008-1207

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Draft
General Management Plan
Environmental Impact Statement

**Rock Creek Park and the
Rock Creek and Potomac Parkway**

Washington, D.C.

Four alternatives were identified for the management of Rock Creek Park and the Rock Creek and Potomac Parkway. Alternative D was identified as the preferred alternative.

Alternative A, Improved Management of Established Park Uses, would improve visitor safety, better control traffic volumes and speeds through the park, enhance interpretation and education opportunities, and improve the use of park resources, especially cultural resources. It generally would retain the current scope of visitor uses.

Alternative B, Continue Current Management/No Action, would continue the current management pattern into the future.

Alternative C, Nonmotorized Recreation Emphasis, would eliminate automobile traffic along much of the northern portion of Beach Drive, and better control traffic volumes and speeds elsewhere. Management of resources other than traffic would be the same as in Alternative A.

Alternative D, Mid-Weekday Recreation Enhancement, would eliminate automobile traffic along much of the northern part of Beach Drive from 9:30 A.M. to 3:30 P.M. each weekday. Management of resources other than traffic would be the same as in Alternative A.

Alternatives A, C, and D would all improve management of the resources of the park and parkway relative to Alternative B. Impact topics that would experience major improvements would include native wildlife, historic structures and cultural landscapes, and visitor safety. Major adverse effects on the traditional visitor experience of automobile touring along the length of the park would occur with Alternative C.

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EXECUTIVE SUMMARY

OVERVIEW

This general management plan and environmental impact statement is the basic guidance document for managing Rock Creek Park and the Rock Creek and Potomac Parkway. The purposes of this plan are to specify resource conditions and visitor experiences to be achieved in the park and parkway, and to provide the foundation for decision-making and preparation of more specific resource plans regarding the management of the park and parkway.

The final general management plan will be the first comprehensive plan prepared for Rock Creek Park and the Rock Creek and Potomac Parkway by the National Park Service (NPS). When completed, it will represent an agreement by the National Park Service with the public on how the park and parkway will be used and managed during the plan period. This plan represents the results of a multi-year-long planning process that began in 1996. This plan complies with applicable NPS planning guidance, including *Director's Order #2: Park Planning* (NPS 1998a), and *Director's Order #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making* (NPS 2001a).

The area covered by this plan includes the 1,754 acres administered by the National Park Service in the Rock Creek valley from the Maryland state line south to the National Zoo, the 2-mile-long Rock Creek and Potomac Parkway from the National Zoo to Virginia Avenue, lands along selected tributaries of Rock Creek, and roadways that are associated with these areas.

A pivotal management issue to be resolved by this plan involves the use of park roads by commuters on weekdays. This issue includes determining the appropriate level of commuter traffic in Rock Creek Park and the degree to which park values would be affected by such use. The other two key management issues include the currently limited ability to provide orientation, interpretation, and education services to visitors in the park, and the problems that park administrative and operation activities encounter at their present locations in historic structures.

These key management issues are summarized in three questions, called decision points. The decision points helped define the management alternatives that are described and evaluated in this draft general management plan. The decision points ask:

- how should traffic be managed in Rock Creek Park and on the Rock Creek and Potomac Parkway?

- what are the most appropriate levels of service and locations for visitor interpretation and education in the park?

- what are the most appropriate locations to support administration and operations functions with respect to minimizing resource disturbance?

Current management practices include closing portions of Beach Drive and other park roads to motorized vehicles on weekends and holidays. These closures provide recreation opportunities that are unmatched elsewhere in the Washington, D.C. metropolitan area, and are very popular with park visitors. Therefore, all of the alternatives for future management of the park will continue the practice of weekend and holiday road closures.

As with all NPS units, management of the park and parkway is guided by numerous congressional acts, executive orders, and NPS policies. In addition to the approaches contained in the alternatives in this draft general management plan, the National Park Service strives to implement all of these legislative, executive, and policy requirements in the park and parkway. The section “Servicewide Policies and Mandates” identifies the desired conditions that the National Park Service will work to attain regardless of the alternative that is selected, and the types of actions the National Park Service will take to achieve those desired conditions.

Specific resources and values, called impact topics, were used to focus the planning process and the assessment of the alternatives’ consequences. Four criteria were used to determine the impact topics. They included resources cited in the establishing legislation for the park or the parkway, resources critical to maintaining the significance and character of the park, resources recognized as important by laws or regulations, and resources of concern to the public, as expressed during scoping. Impact topics were organized into three categories:

- natural resources, including air quality, Rock Creek and its tributaries, wetlands and floodplains, deciduous forests, protected and rare species, and other native wildlife

- cultural resources, including archeological resources, historic structures, and cultural landscapes

- visitor and community values, including traditional park character and visitor experience, regional and local transportation, and community character

Four alternatives were developed to provide different approaches for addressing the decision points. To design the four alternatives, the National Park Service first conducted public scoping, and then screened a larger number of alternatives, refining them based on public input. Following the general definition of the alternatives, the National Park Service identified management prescriptions that could be applicable to implementing the alternatives.

The management prescriptions identify how various parts of the park and parkway would be managed. Each prescription is defined in this general management plan based on desired visitor experiences and resource conditions, and the kinds of activities or facilities within the prescription that would achieve the targeted conditions. The management prescriptions were then mapped to specific areas of the park to define the details of the four alternatives.

Twelve management prescriptions define all of the target visitor experiences and resource conditions that could occur under the four alternatives for Rock Creek Park and the Rock Creek and Potomac Parkway. Each alternative is a combination of several management prescriptions. None of the alternatives would use all of the prescriptions, and the locations where some of the prescriptions would be applied vary among alternatives.

Consistent with the high level of concern expressed in scoping about the use of roadways, seven of the prescriptions apply to roads. The others emphasize desired conditions and visitor experiences for forests, cultural resources, recreation areas, visitor facilities, and administration and operations areas.

DESCRIPTIONS OF ALTERNATIVES

Guidelines for preparing environmental impact statements require that the preferred alternative be identified in the draft environmental impact statement unless the decision-maker has no prefer-

ence. The National Park Service has identified Alternative D: Mid-Weekday Recreation Enhancement, as the preferred approach for future management of the park and parkway. This alternative would provide for the broadest use of the park and would represent the best balance of improving resource protection, enhancing recreational opportunities, and continuing the traditional visitor experience of automobile touring along the length of the park.

The key features of the alternatives include the following.

Alternative A: Improved Management of Established Park Uses. Alternative A would improve visitor safety, better control traffic volumes and speeds through the park, enhance interpretation and education opportunities, and improve the use of park resources, especially cultural resources. It generally would retain the current scope of visitor uses.

Alternative A would improve traffic management within the park and parkway. The existing park roadway system would be retained and nonrecreational through-traffic would be accommodated. However, to improve visitor safety and the quality of the visitor's experience, traffic would be managed to reduce speeds and volumes compared to those that would occur if current management were continued (Alternative B). This would include high-occupancy vehicle (HOV) restrictions during rush-hours on segments of Beach Drive. Alternative A also would:

- upgrade some trails and rehabilitate deteriorating segments
- rehabilitate the Peirce Mill complex to focus on the history of milling and land use in the area, and rehabilitate the Peirce Mill Barn for use in interpretation and education
- move the park administrative offices out of the Peirce-Klingbein Mansion at Linnaean Hill to commercial office space outside the park, or to a new office facility that would be constructed at the park maintenance yard
- rehabilitate the Linnaean Hill complex for adaptive use compatible with park values
- move the U.S. Park Police substation out of the Lodge House on Beach Drive at Joyce Road to commercial space outside the park, or to a new park police substation that would be constructed near the existing U.S. Park Police H-3 stables
- convert the Lodge House to a visitor contact station to provide park orientation, information, and interpretation
- rehabilitate and expand the nature center and upgrade the planetarium to improve effectiveness of public programs

Alternative B: Continue Current Management/No Action. Alternative B would continue the current management pattern into the future. It represents the "no action alternative" required by the Council on Environmental Quality (1978) guidelines for implementing the National Environmental Policy Act and *Director's Order #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making* (NPS 2001a).

Under Alternative B, Rock Creek Park and the Rock Creek and Potomac Parkway would be maintained as they have evolved thus far. There would not be any major changes in resources management, visitor programs, or facilities beyond regular maintenance. The current park road system would be retained and existing traffic management would continue.

Alternative C: Nonmotorized Recreation Emphasis. Alternative C would address comments by members of the public who want to promote nonmotorized recreation. Alternative C would eliminate traffic in much of the northern part of the park by closing three sections of Beach Drive to automobiles. These would be the same three segments that currently are closed on weekends. It also would implement traffic-reducing and traffic-calming measures on roads in the southern portion of the park and on the parkway. The Alternative C management proposals for resources other than traffic would be the same as those listed above for Alternative A.

The intent of closing the road along portions of the Rock Creek valley floor would be to manage this area as a quiet refuge from urban automobile traffic and to promote nonmotorized recreation throughout the week. This section of the park would become a destination for nonmotorized activities, rather than a through drive, in keeping with the park's natural and historic character. Alternative C also would convert the road into a paved trail through the Rock Creek valley and connecting to the Potomac River, as envisioned in regional bicycle plans.

Alternative D: Mid-Weekday Recreation Enhancement. Alternative D was developed in response to a letter sent to the National Park Service by the mayor of Washington, D.C. The mayor suggested "implementing weekday vehicular traffic restrictions on sections of upper Beach Drive in non-rush hour periods."

On weekdays, Alternative D would close three segments of Beach Drive in the northern portion of the park to motorized vehicles for a 6-hour period, from 9:30 A.M. to 3:30 P.M. These would be the same segments that currently are closed on weekends. For the other 18 hours of each weekday, including both rush-hour periods, traffic management would be similar to Alternative B, although traffic-calming measures like those in Alternative A would be used to reduce speeds. Alternative D would manage resources other than traffic in the same manner as presented above for Alternative A.

Alternative D was intended as a compromise between traffic and nonmotorized recreation. During rush-hour periods, the alternative would attempt to facilitate traffic flows and minimize the diversion of rush-hour traffic from the park into nearby neighborhoods. Between rush-hour periods on weekdays, it would promote nonmotorized recreation and provide a quiet refuge from the surrounding urban area.

ENVIRONMENTAL CONSEQUENCES

The environmental impact statement portion of this plan describes the affected environment of the park and parkway in terms of 11 impact topics. The environmental consequences section describes the effects of each alternative on each impact topic.

Determining environmental consequences first included identifying the regulations and policies that were applicable to the impact topic, and then defining the methods that were used to conduct the analysis. This included defining relative terms such as "minor" or "major" effects for the impact topic and establishing timeframes for long-term and short-term effects. The analysis was then performed both for the park and parkway and in a more regional context to determine cumulative impacts. Most analyses involved comparing conditions that would occur with changes in management (Alternatives A, C, and D, commonly called the "action alternatives") to conditions that would occur if current management practices continued (Alternative B, the "no action alternative").

The analysis of environmental consequences found that all four alternatives would have fairly similar effects on air quality, the water quality and hydrology of Rock Creek and its tributaries, wetlands and floodplains, deciduous forests, and protected and rare species. These findings would be expected, based both on the NPS' mandate to protect these resource and the development of the alternatives from decision points that focus on traffic management, visitor interpretation and education, and effective administration and operations.

Some differences to natural resources would occur. However, except for roadkill reductions that would occur with all of the action alternatives, none of the differences to natural resources among the alternatives would be major.

In the area of traditional park character and visitor experience, the improved education and interpretation facilities included in Alternatives A, C, and D would provide greater opportunities for the public to learn about and experience the park's natural and cultural resources, compared to Alternative B. The action alternatives would also enhance the efficiency of park administration and improve police services.

The traffic management measures of all three action alternatives would produce major improvements in visitor safety. Most of the improvements would be associated with the implementation of engineered traffic-calming devices, which would reduce vehicle speeds and the associated frequency and severity of accidents.

The greatest benefits to nonmotorized recreation would be associated with Alternative C. However, Alternative C would eliminate the traditional visitor experience of automobile touring along the length of the park, including the gorge area, which would be a major adverse effect on traditional park character and visitor experience.

Park roads designed as historic also are considered a cultural resource. By closing them to motorized traffic, Alternative C would modify the design features that define their significance.

Cultural resources would be the only impact topic where one or more of the alternatives could cause irreversible and irretrievable losses of resources. Under the three action alternatives, the disturbance of sites in association with new construction could result in some irreversible and irretrievable loss of archeological or historic resources.

For Alternatives A, C, and D, the effects on traditional park character and visitor experience, regional and local transportation during rush hours, and community characteristics that are associated with traffic levels were evaluated based on improvements or declines in levels of service (LOS) relative to Alternative B in the year 2020.

Alternative D would produce 2020 conditions similar (no differences in LOS) to those in Alternative B. This result was expected, since Alternative D was designed to minimize effects both on rush-hour traffic and neighborhoods.

Within the park, for the other two action alternatives, improvements in LOS would be noticeable to major. Effects would include a 40 percent reduction in average daily traffic through the gorge area with Alternative A, and the elimination of automobile traffic on most of Beach Drive north of Broad Branch Road with Alternative C.

Noticeable (change of one LOS) improvements in traffic would occur along most of the Rock Creek and Potomac Parkway with Alternatives A and C.

Outside of the park, Alternative A would provide noticeable to major LOS improvements on four road segments. Two road segments would have noticeably degraded LOSs, with associated adverse effects on community character. There would not be a disproportionate routing of traffic to disadvantaged areas or ethnic neighborhoods.

With Alternative C, eight road segments outside of the park would have the benefits to traffic and community character of improved LOSs, while nine road segments would have decreased LOSs with associated adverse effects on traffic and community character. There would not be a disproportionate routing of traffic to disadvantaged areas or ethnic neighborhoods.

During the middle part of workdays, Alternatives C and D would have similar effects, diverting traffic that would use park roads under Alternative B onto nearby city streets. However, nearby streets and intersections would be operating well below their capacities during the mid-day period, even in the year 2020. While the diverted mid-day traffic would be perceptible on some city streets, it would not cause any changes in LOSs or in traffic-related community character.

With regard to the first decision point, Alternatives A, C, and D would substantially reduce automobile traffic in the park compared to Alternative B.

Alternative A would accomplish this by implementing traffic-reducing and traffic-calming measures, including HOV requirements during rush hours, while maintaining the roads as part of the city's transportation system throughout weekdays.

Alternative C would permanently remove some segments of Beach Drive from the city's motorized vehicle grid, and would implement traffic-reducing and traffic-calming measures in other areas.

Alternative D would implement traffic-calming measures, and would also close sections of Beach Drive to motorized traffic during the middle part of each weekday.

Regarding the second decision point, the levels of service for visitor interpretation and education would be equally improved under the identical measures of Alternatives A, C, and D. This would be accomplished by moving administrative and operations functions out of historic buildings and by rehabilitating these and other historic and educational structures. For the third decision point, Alternatives A, C, and D would provide the same level of improvements compared to Alternative B by moving administration and operations functions into modern facilities.

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PURPOSE OF AND NEED FOR ACTION

This section defines the purposes of the general management plan for Rock Creek Park and the Rock Creek and Potomac Parkway, and why the general management plan is needed. It includes planning direction and guidance, and identifies the issues (decision points and impact topics) that were considered.

PURPOSE OF THE GENERAL MANAGEMENT PLAN

Rock Creek Park and the Rock Creek and Potomac Parkway are heavily used by the public. This use places demands on park personnel and facilities to protect resources and maintain a suitable visitor experience. Use and associated demands are expected to increase in the future. A coordinated, integrated plan is required to guide park management in a direction that best meets the multiple demands being placed on the area.

This plan is the basic document for managing Rock Creek Park and the Rock Creek and Potomac Parkway. The purposes of this general management plan are to

- specify resource conditions and visitor experiences to be achieved in Rock Creek Park and the Rock Creek and Potomac Parkway

- provide the basic foundation for decision-making regarding the management of the park and parkway

The final general management plan will be the first comprehensive plan prepared for Rock Creek Park and the Rock Creek and Potomac Parkway by the National Park Service (NPS). When completed, it will represent an agreement by the National Park Service with the public on how the park and parkway will be used and managed. As such, it is intended to

- confirm the significance of the park and parkway

- establish the direction and values that should be considered in planning to achieve the purposes defined in the establishing legislation of the park and parkway

- define management prescriptions that establish the goals of the National Park Service and the public with regard to visitor experience, natural resources, and cultural resources, including the types and locations of resource management activities, visitor activities, and development that are appropriate within each management prescription

- determine areas where management prescriptions should be applied to achieve the overall management goals of the park and parkway

- assist NPS staff in determining whether actions proposed by the National Park Service or others are consistent with the goals embodied in the management prescription where the action would occur

- serve as the basis for shorter-term management documents such as 5-year strategic plans, annual performance plans, and implementation plans

PURPOSE AND NEED FOR ACTION

Some of the future visitor experience, natural resource, and cultural resource conditions of Rock Creek Park and the Rock Creek and Potomac Parkway are specified in law and policy. Others must be determined through planning. The alternatives in this draft general management plan address the resource and experience conditions that are not mandated by law and policy.

The National Park Service views public comment as an integral part in establishing the desired resource and experience conditions that will guide the management of the park and parkway. Measures taken by the National Park Service to include the public as a partner in general management planning for the park and parkway include:

- soliciting public participation in the planning process and incorporating suggestions from the public into the park management alternatives

- performing public scoping to identify important impact topics and evaluating the effects of the alternatives to those impact topics in the draft environmental impact statement

- inviting the public to comment on this draft general management plan and environmental impact statement and using that input in the preparation of the final general management plan and environmental impact statement

The general management plan does not propose specific actions or describe how particular programs or projects should be ranked or implemented. Those decisions will be addressed during the more detailed planning associated with strategic plans, annual performance plans, and implementation plans. All of those plans will derive from the goals, future conditions, and appropriate types of activities established in the general management plan. As part of that decision-making process, project-specific National Environmental Policy Act (NEPA) documents would be prepared prior to the implementation of any of the actions included in this general management plan.

NEED FOR THE GENERAL MANAGEMENT PLAN

A general management plan is needed for Rock Creek Park and the Rock Creek and Potomac Parkway because there is no modern document to guide their management. The only previous broad management plan for Rock Creek Park was written in 1918 (Olmsted Brothers 1918). This plan was prepared prior to the park coming under NPS jurisdiction in 1933 and before lands around the park were heavily developed. The Rock Creek and Potomac Parkway, which opened in 1936, has never had a plan to guide management.

Without an overall plan, decisions for both the park and parkway have been made over the years in a piecemeal fashion. This general management plan, which provides broad direction for the future of the park and parkway, is needed to assist park managers in making purposeful decisions based on a deliberate vision of the park and parkway.

General management planning is needed to

- clarify the minimum levels of resource protection and public use that must be achieved for the park and parkway, based on the park- and parkway-specific purpose and significance, plus the body of laws and policies directing park management

- determine the best mix of resource protection and visitor experiences beyond what is prescribed by law and policy based on the

 - mission of the park and parkway

 - range of public expectations and concerns

 - resources occurring within the park

 - long-term economic costs

- establish the degree to which the park should be managed to

 - preserve and enhance its natural and cultural resources

 - provide recreation

 - control nonrecreational traffic

A general management plan also is needed to meet the requirements of the National Parks and Recreation Act of 1978 and NPS policy, which mandate an up-to-date general management plan for each unit of the national park system.

PARK HISTORY AND USE RELATIVE TO MANAGEMENT PLANNING

Rock Creek Park is located in the northern portion of Washington, D.C. (Region map). It consists primarily of an undeveloped, wooded valley, with some associated tributaries and uplands. The major landscape feature is Rock Creek, a perennially flowing stream that bisects the length of the park before joining the Potomac River south of the park. The park is completely surrounded by the heavily urbanized metropolitan Washington, D.C. area (Vicinity map).

The central issue for general management planning in Rock Creek Park is how to meet the often conflicting purposes of protecting the scenic, natural, and cultural resources of the park, while concurrently providing for appropriate public use of these resources. This issue is complicated by the location of Rock Creek Park within a major metropolitan area. As a result of its location, the park has many users, some of whom hold widely varying opinions about its optimal use. Another challenge of this urban location involves encouraging use by all segments of the public.

Rock Creek Park was founded in 1890 as one of the first federal parks. Its establishing legislation, provided in appendix A, cites the area's natural beauty and high public value. When the park was established, it was on the edge of the growing city and was already a favorite area for rural retreat. In the establishing legislation, Rock Creek Park was "dedicated and set apart as a public park or pleasure ground for the benefit and enjoyment of the people of the United States." The park would "provide for the preservation from injury or spoliation of all timber, animals, or curiosities within said park, and their retention in their natural condition, as nearly as possible."

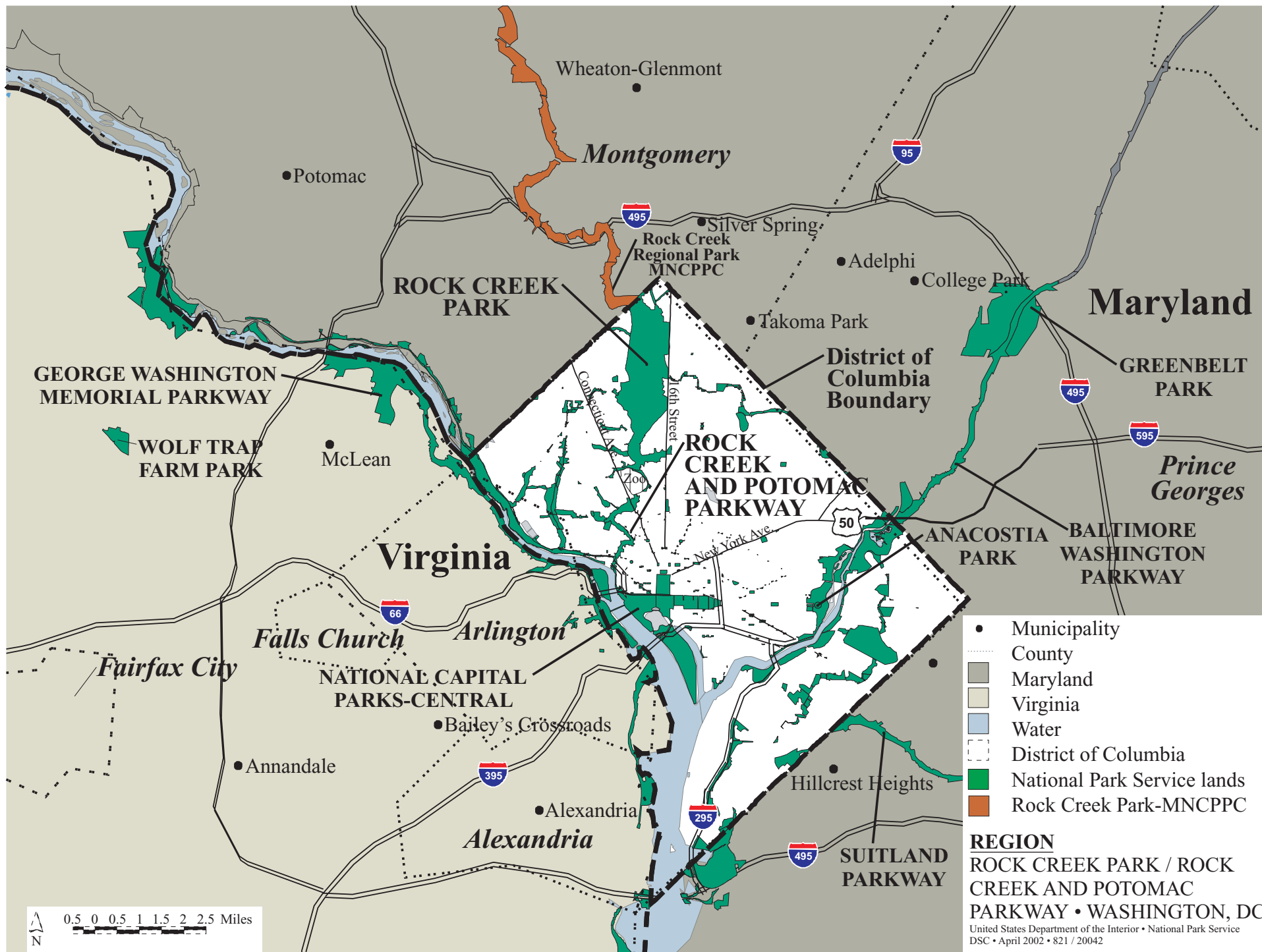
Rock Creek Park was set aside as an asset in anticipation of its envelopment by Washington, D.C. and its suburbs. As the area became more urbanized, the park's value has been recognized not only for the recreation opportunities it provides, but also for the protection it affords to remnant native wildlife populations and their habitats, and to historic structures and cultural landscapes.

Beach Drive, which bisects the length of the park from the Maryland state line to the Rock Creek and Potomac Parkway, was originally designed as an internal park touring road to provide recreational access to the valley. In the 1918 master plan for the park, the Olmsted brothers warned against bringing the "noise and tangle" of city traffic into the heart of the park. At the same time, they recognized a need to accommodate urban traffic across the park.

The Rock Creek and Potomac Parkway was established by the Public Buildings Act of March 4, 1913. According to Section 22 of that legislation, which is provided in appendix A, the parkway was authorized "for the purpose of preventing pollution and obstruction of Rock Creek." It also was intended as a travel corridor "connecting Potomac Park with the Zoological Park and Rock Creek Park."

There are differences in the legislative purposes of the park and parkway. However, both were intended to blend recreation with the preservation of natural scenery and environmental quality.

In 1916, Congress passed the Organic Act, which created the National Park Service. Through this act, Congress established the NPS' mission to "preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations." Thus, any management actions in Rock Creek Park must recognize that preserving the natural and cultural resources and values of the park is paramount, and that



any visitor activities associated with “enjoyment, education, and inspiration” can occur only to the extent that they do not impair the natural and cultural resources and values for future generations.

Since the parkway opened in 1936, it has served as a scenic roadway in the city. Since 1937, the National Park Service has been managing traffic on weekdays by making the parkway one-way inbound during the morning rush-hour and one-way outbound during the afternoon rush-hour. Traffic management techniques implemented by the National Park Service within Rock Creek Park have included replacing fords with bridges and providing turning lanes at intersections.

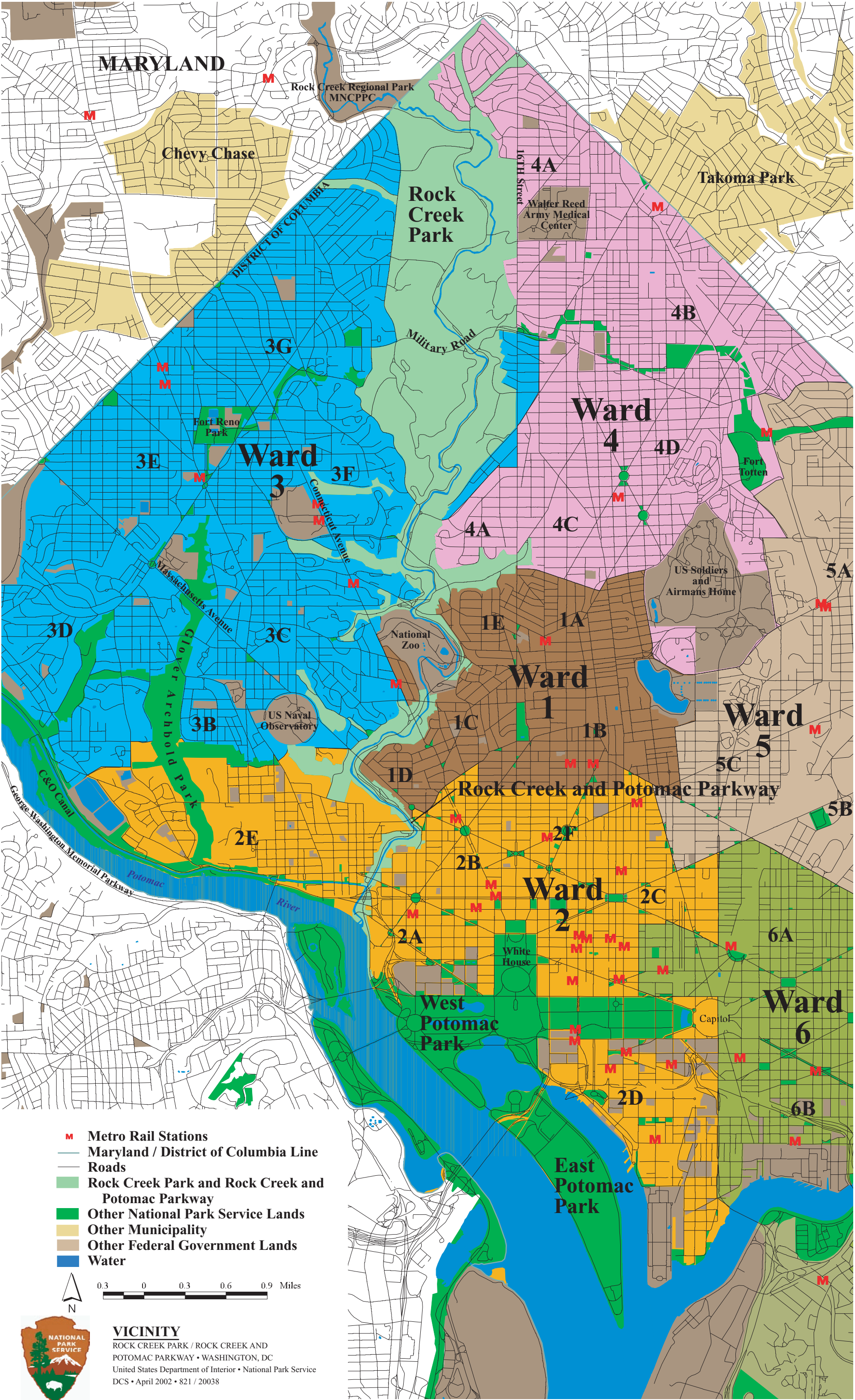
The opening of the Zoo Tunnel in 1966 removed a major impediment to traffic. The inadvertent result was to make the corridor consisting of Beach Drive and the Rock Creek and Potomac Parkway into a preferred commuter route for many residents of northwest Washington, D.C. and suburban Montgomery County, Maryland. As discussed in detail in the “Affected Environment” section, weekday traffic averages 9,000 vehicles per day on parts of Beach Drive, while 55,000 vehicles typically use the busiest portion of the Rock Creek and Potomac Parkway. More than 95 percent of the vehicles entering the park during commuting hours pass through without stopping (Robert Peccia & Associates 1997).

As the population of Washington, D.C. has increased, so has the demand for recreational opportunities. As described in the “Affected Environment” section, Rock Creek Park currently supports more than 2 million recreation visits per year.

Since the 1970s, the National Park Service has been closing sections of Beach Drive and some other park roads to motorized traffic during weekends and holidays to better accommodate recreational uses in the park. These closures have been very popular with the recreating public.

The most controversial management issue to be resolved by this draft general management plan involves the use of park roads by commuters on weekdays. Specifically, this issue includes determining the appropriate management of commuter traffic in Rock Creek Park and the degree to which park values would be affected by nonrecreational commuter use. During scoping, many members of the public indicated that the recreational and environmental values of the park are compromised by heavy, high-speed commuter traffic. They would like to reduce and control traffic to enhance park recreational values and visitor safety. Some called for extensive road closures in favor of bicycling and other more recreational and less polluting forms of travel through the park. Others said that the current mix of recreational and nonrecreational use of the park and parkway, including urban traffic, is appropriate and enhances the quality of life in the city and surrounding region.

Another key management issue, which has been expressed both by the National Park Service and members of the public, is the current limited ability to provide adequate orientation, interpretation, and education services to visitors in the park. In addition, park services have outgrown the historic structures in which they are located. These include administrative and operational activities at headquarters in the Peirce-Klingler Mansion at Linnaean Hill and the U.S. Park Police District 3 substation in the Lodge House. Continuing the current arrangement would lead to increased inefficiencies and could affect the historical integrity of these buildings.



PURPOSE AND NEED FOR ACTION

These key management issues of Rock Creek Park can be summarized in three questions.

How should traffic be managed in Rock Creek Park and on the Rock Creek and Potomac Parkway?

What are the most appropriate levels of service and locations for visitor interpretation and education in the park?

What are the most appropriate locations to support administration and operations functions with respect to minimizing resource disturbance?

The potential solutions to these questions are reflected in the four management alternatives analyzed in this draft general management plan and environmental impact statement. The alternatives also address the adequacy and appropriateness of park services and facilities, and the challenges posed by managing a large, undeveloped area in the center of a major city.

GEOGRAPHIC AREA COVERED BY THE GENERAL MANAGEMENT PLAN

Rock Creek Park, as an administrative unit of the national park system, is composed of 99 separate areas, known as reservations, located in the northern part of Washington, D.C. However, not all of those reservations are included in this general management plan. The area covered by this general management plan is shown in the Existing Conditions map and includes

the 1,754 acres administered by the National Park Service in the Rock Creek valley from the Maryland state line south to the National Zoo

the Rock Creek and Potomac Parkway from the National Zoo to Virginia Avenue

selected tributaries to Rock Creek and associated roadways, including Pinehurst Parkway, Melvin Hazen Park, Klinge Valley, Soapstone Valley Park, Normanstone Parkway, Portal Parkway, and Beach Parkway

Areas that are not included in this general management plan include the following.

The Rock Creek Tennis Stadium and adjoining playing fields. Management direction for this area was established in the *Final Environmental Impact Statement, Tennis Stadium, Rock Creek Park* (NPS 1995b).

The Carter Barron Amphitheater complex.

The similarly named Rock Creek Regional Park in Maryland, which is administered by the Maryland National Capital Park and Planning Commission (MNCPPC).

A number of historical and recreational reservations administered by the staff of Rock Creek Park but not within the park proper. Such sites include the Civil War defenses of Washington, D.C. other than Fort DeRussy (for example, Fort Reno and Fort Stevens), Dumbarton Oaks Park, the Old Stone House, Meridian Hill Park, Montrose Park, and Glover Archbold Park. These sites have specific management and design needs because

of their special historic value and/or because their public uses are different from those of Rock Creek Park.

PLANNING DIRECTION OR GUIDANCE

This section defines the basis for any actions taken at Rock Creek Park and the Rock Creek and Potomac Parkway. Guidance and direction include the purpose and significance of the park and parkway, the goals of the National Park Service for the park and parkway, any park- and parkway-specific mandates and administrative commitments, and servicewide mandates and commitments that the National Park Service applies to all units under its administration.

Park Mission

This section describes the legislatively established missions of Rock Creek Park and the Rock Creek and Potomac Parkway. It defines why the park and parkway were created and why they are special. These are the fundamental criteria against which the appropriateness of all plan recommendations, operational decisions, and actions are tested.

Park and Parkway Purposes. The 1890 legislation establishing Rock Creek Park is provided in appendix A.

It states that the area is to be “perpetually dedicated and set apart as a public park or pleasure ground for the benefit and enjoyment of the people of the United States.”

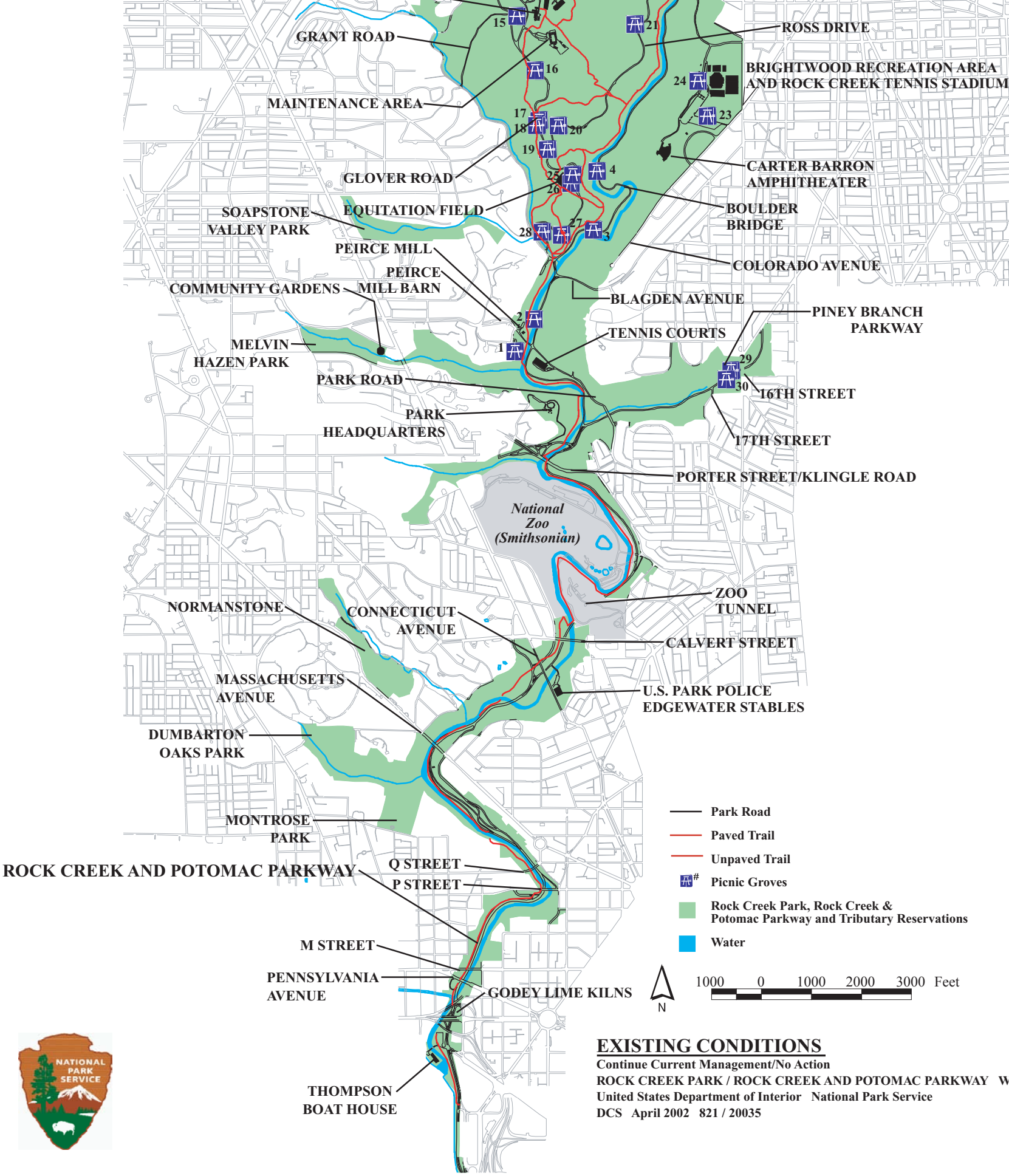
It specifies that the park is to “provide for the preservation from injury or spoliation of all timber, animals, or curiosities within said park, and their retention in their natural condition, as nearly as possible.”

It directs park managers to provide for public recreation, specifically to “lay out and prepare roadways and bridle paths, to be used for driving and for horseback riding, respectively, and footways for pedestrians.”

Portions of tributaries to Rock Creek, such as Soapstone Valley and Hazen Park, have been added to the park management unit over the years as separate reservations. The legislative language for tributary additions typically states that they are to preserve the flow of water in Rock Creek, prevent pollution of Rock Creek and the Potomac River, and preserve forests and natural scenery in and around Washington, D.C.

Rock Creek Park is linked to the Potomac River and the monumental core of Washington, D.C. by the Rock Creek and Potomac Parkway. Congress established the parkway in 1913 for “the purpose of preventing pollution and obstruction of Rock Creek and of connecting Potomac Park with the Zoological Park and Rock Creek Park.” The parkway corridor is managed contiguously with Rock Creek Park.

The following purpose statements are based on and represent the NPS’ interpretation of the above legislative mandates and NPS policies. These purpose statements are the most fundamental criteria against which the appropriateness of all plan recommendations, operational decisions, and actions are to be tested.



PURPOSE AND NEED FOR ACTION

Rock Creek Park exists to

- preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible, the archeological and historic resources in the park, and the scenic beauty of the park

- provide opportunities for the public to experience, understand, and appreciate the park in a manner appropriate to the preservation of its natural and cultural resources

- provide opportunities for recreation appropriate to the park's natural and cultural resources

The Rock Creek and Potomac Parkway exists to

- connect Rock Creek Park and the National Zoological Park (National Zoo) to Potomac Park with a scenic road

- prevent pollution and obstruction of Rock Creek

Park areas that contain tributaries to Rock Creek exist to

- preserve the flow of water in Rock Creek

- prevent the pollution of Rock Creek and the Potomac River

- preserve forests and natural scenery in and around Washington, D.C.

Park and Parkway Significance. Park significance statements capture the essence of the park's importance to the nation's natural and cultural heritage. Understanding park significance helps managers to make decisions that preserve the resources and values necessary to the park's purposes. The following significance statements recognize the important features of the park and parkway.

- Rock Creek Park is one of the oldest and largest naturally managed urban parks in the United States.

- The park and parkway contains approximately 2,100 acres of valuable plant and wildlife habitat, providing protection for a variety of native species within a heavily urbanized area.

- Rock Creek Park encompasses a rugged stream valley of exceptional scenic beauty with forested, natural landscapes and intimate natural details, in contrast to the surrounding cityscape of Washington, D.C.

- Rock Creek Park's forests and open spaces help define the character of the nation's capital.

- Rock Creek valley was important in the early history of the region and in the development of the nation's capital, and the park's cultural resource are among the few tangible remains of the area's past.

Rock Creek Park is an oasis for urban dwellers, offering respite from the bustle of the city.

The Rock Creek and Potomac Parkway is the first federally constructed parkway and one of the best examples of early parkway design.

The Rock Creek and Potomac Parkway provides a scenic gateway to the city's monumental core.

Rock Creek Park is a historic designed landscape incorporating early 20th century picturesque and rustic features designed to enhance the visitors' experience of the naturalistic park scenery.

Located in the heart of a densely populated cosmopolitan area, Rock Creek Park serves as an ambassador for the national park idea, providing outstanding opportunities for education, interpretation, and recreation to foster stewardship of natural and cultural resources.

Mission Goals

This section defines in broad terms the ideals that the National Park Service is striving to attain, as they are applicable to Rock Creek Park and the Rock Creek and Potomac Parkway.

Park mission goals articulate the broad ideals and vision that the National Park Service is trying to achieve at Rock Creek Park. The goals for the park are directly linked to the NPS servicewide mission goals contained in the *National Park Service Strategic Plan* (NPS 2000). They are written as desired outcomes in keeping with the Government Performance and Results Act. Mission goals for Rock Creek Park are as follows.

The natural and cultural resources and associated values of Rock Creek Park are protected, preserved, and maintained in good condition and managed within their broader ecosystem or cultural context (Service Mission Goal Ia).

Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities (Service Mission Goal IIa).

Park visitors and the general public understand and appreciate the preservation of the park and its resources for this and future generations (Service Mission Goal IIb).

Natural and cultural resources are conserved through formal partnership programs (Service Mission Goal IIIa).

Through partnerships with other federal, state, and local agencies and non-profit organizations, Rock Creek Park contributes to a nationwide system of parks, open spaces, rivers, and trails and provides educational, recreational, and conservation benefits for the American people (Service Mission Goal IIIb).

The National Park Service uses current management practices, systems, and technologies to accomplish its mission at Rock Creek Park (Service Mission Goal IVa).

The National Park Service increases its managerial capabilities through initiatives and support from other agencies, organizations, and individuals (Service Mission Goal IVb).

Special Mandates and Administrative Commitments

Special mandates and administrative commitments refer to park-specific requirements. These formal agreements often are established concurrently with the creation of a park. Rock Creek Park and the Rock Creek and Potomac Parkway do not have any special mandates that would affect this general management plan and future planning activities.

Servicewide Mandates and Policies

This section identifies what must be done at Rock Creek Park and the Rock Creek and Potomac Parkway to comply with federal laws and with the policies of the National Park Service. These are measures that the National Park Service must strive to meet, regardless of the alternative selected for the long-term management of the park and parkway.

As with all NPS units, management of the park and parkway is guided by numerous congressional acts and executive orders, in addition to the establishing legislation. Many of the laws and executive orders that guide park management, with their legal citations, are identified in appendix B. Some of these laws and executive orders are applicable primarily to units of the national park system. These include the 1916 Organic Act creating the National Park Service, the General Authorities Act of 1970, and the act of March 27, 1978 relating to the management of the national park system. Others have broader application, such as the Endangered Species Act, the National Historic Preservation Act, and Executive Order 11990 addressing the protection of wetlands.

The National Park Service also has established policies for all units under its stewardship. These are identified and explained in the NPS guidance manual entitled *Management Policies 2001* (NPS 2001b).

Some of the conditions prescribed by servicewide mandates and policies are summarized below. These servicewide legal mandates and policies can all be categorized as

- natural resource management requirements
- cultural resource management requirements
- visitor experience and park use requirements
- special use management requirements

The alternatives considered in this document incorporate and comply with the provisions of these mandates and policies. In addition to the approaches specified in this draft general management plan, the National Park Service will strive to implement all of the servicewide mandates and policies at Rock Creek Park. The general management plan is not needed to state, for instance, that it is appropriate to protect endangered species, control invasive species, improve water quality, protect archeological sites, preserve historic structures, provide access for citizens with disabilities, and conserve artifacts.

Natural Resource Management Requirements. Categories included in natural resource management requirements are air quality, water resources, geologic resources, native species, and wildfire.

Air Quality – Current laws and policies require that the following conditions be achieved in the park.

Desired Conditions	Sources
Air quality in the park and parkway meets national ambient air quality standards (NAAQS) for specified pollutants.	Clean Air Act NPS <i>Management Policies</i>
Park activities do not contribute to deterioration in air quality.	Clean Air Act NPS <i>Management Policies</i>

The National Park Service has little control over air quality within the metropolitan Washington, D.C. regional airshed, which encompasses the park. Therefore, the park must cooperate with regional agencies and the Environmental Protection Agency to monitor air quality and to work toward air quality improvements. The National Park Service will take the following kinds of actions to meet legal and policy requirements related to air quality in Rock Creek Park and the Rock Creek and Potomac Parkway.

Conduct air quality monitoring in conjunction with regional air quality agencies. This could include enhanced monitoring of localized air quality, either by establishing long-term monitoring stations in the Rock Creek valley or by conducting sampling during pollution high-risk periods.

Participate in regional air pollution control plans and regulations.

Review permit applications for major new air pollution sources that could affect the park.

Conduct park operations in compliance with federal, state, and local air quality regulations.

Water Resources – Current laws and policies require that the following condition be achieved in the park.

Desired Condition	Source
Rock Creek and its tributaries within the park and parkway are free flowing.	Rock Creek Park and Rock Creek and Potomac Parkway enabling legislation
Surface waters and groundwater are protected or restored such that water quality as a minimum meets all applicable Washington, D.C. water quality standards.	Clean Water Act Executive Order 11514 NPS <i>Management Policies</i>
NPS and NPS-permitted programs and facilities are maintained and operated to avoid pollution of surface waters and groundwater.	Clean Water Act Executive Order 12088 NPS <i>Management Policies</i>

Desired Condition	Source
Natural floodplain values are preserved or restored.	Executive Order 11988 Rivers and Harbors Act Clean Water Act <i>NPS Management Policies</i>
The natural and beneficial values of wetlands are preserved and enhanced.	Executive Order 11990 Rivers and Harbors Act Clean Water Act <i>NPS Management Policies</i>

Rock Creek is the central feature of Rock Creek Park. As shown in the Rock Creek Watershed map, Rock Creek Park is located within the lower watershed. The park comprises only a small portion of the watershed and, therefore, has limited opportunities to control actions that affect water quality. Activities occurring elsewhere in the watershed outside the boundaries of the park have a greater influence on water quality in the park than activities inside the park.

The basin drains approximately 77 square miles and includes urban, suburban residential, agricultural, and parkland areas. About 70 percent of the watershed is developed, and much of the developed area contains impervious surfaces. As a result, the park is increasingly subjected to flooding caused by rapid runoff, abnormal stream bed scouring in some places and sedimentation in others, bank erosion, organic and chemical pollution, and accumulation of litter and other solid waste. Park waters do not meet quality standards for human contact, thus limiting water-oriented recreation. Observations by NPS water quality specialists indicate that water quality appears to be depressed or declining in some areas.

As with air quality, the National Park Service must cooperate with regional agencies to improve water quality. The National Park Service will take the following kinds of actions to meet legal and policy requirements related to water resources.

Improve coordination with other agencies to ensure proper monitoring, inspection, and repair of sanitary sewers in and around the park to reduce the impacts on park water and land. Work toward the NPS' long-term goal of eliminating contaminant releases from all sanitary and storm sewers in the park. Work with other agencies in the watershed to trace and eliminate illegal discharges into the storm sewer networks that drain into Rock Creek. Coordinating agencies include, but are not limited to, the

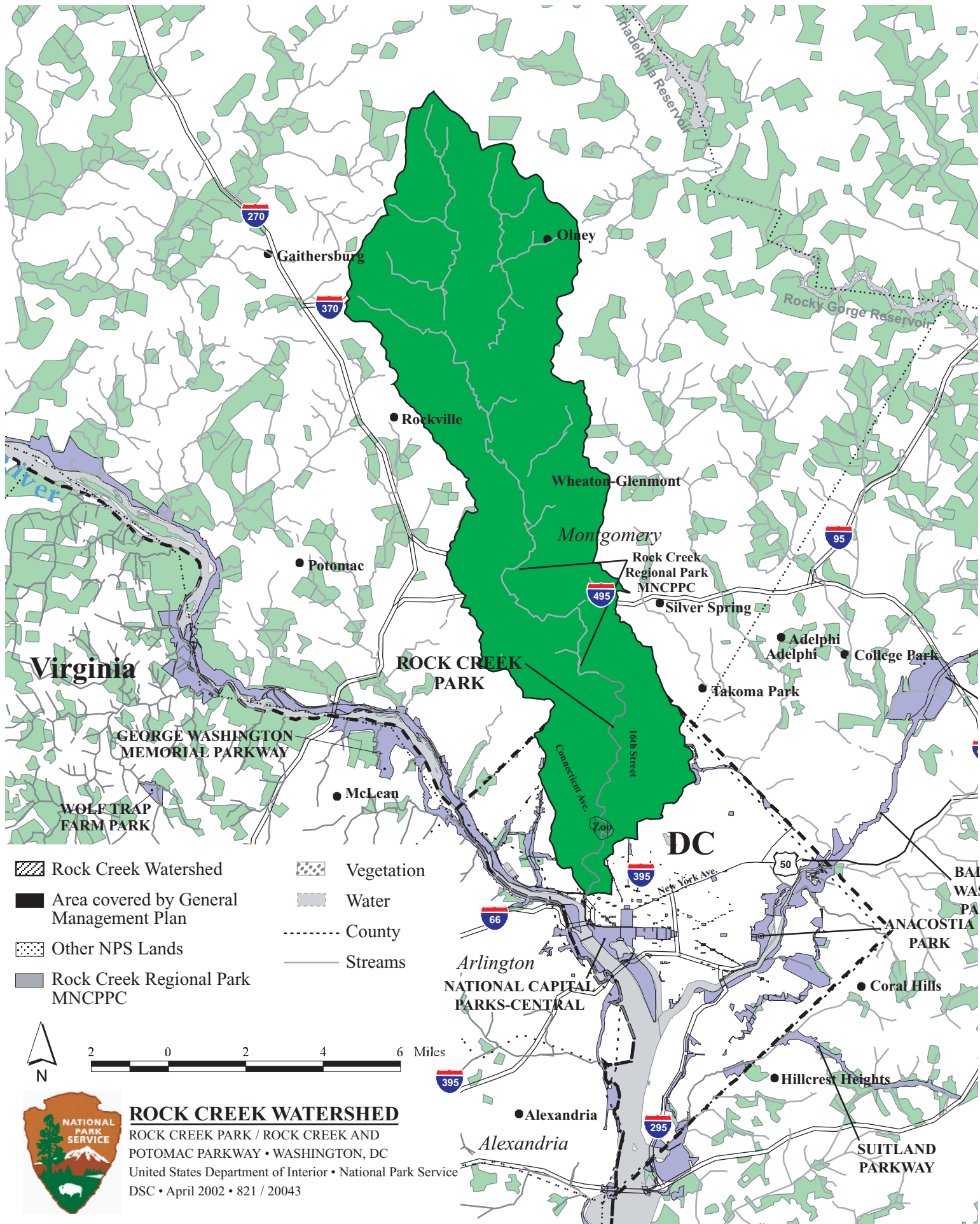
District of Columbia Water and Sewer Authority

Montgomery County Department of Public Works and Transportation

Washington Suburban Sanitary Commission

Maryland National Capital Park and Planning Commission

U.S. Environmental Protection Agency



Support the investigation and mitigation of artificially accelerated streambank erosion and stream bed incision and their effects on natural riparian habitats. This could include implementing erosion control measures, such as establishing new streambank vegetation in eroded areas and riprap placement.

Apply best management practices to all pollution-generating activities and facilities in the park, such as operation of stables (both by a concessionaire and the National Park Service), maintenance and storage facilities, the golf course, and parking areas.

Minimize the use of pesticides, fertilizers, and other chemicals and manage them in conformance with NPS policy and federal regulations.

Promote greater public understanding of water resource issues in the park and encourage public support for and participation in improvements in the Rock Creek watershed.

Continue to support the goals of the Chesapeake Bay Program as they relate to Rock Creek and its tributaries and continue to participate in the regional program as a partner. Encourage and support the formation of a Rock Creek watershed coordinating group to foster a broad spectrum of water resource projects and activities to protect and improve the Rock Creek watershed.

Support initiatives by the U.S. Environmental Protection Agency, State of Maryland, and local governments, including the District of Columbia and Montgomery County, that monitor, reduce, or eliminate the pollution in urban, non-point-source runoff that affects Rock Creek or its tributary streams. These could include implementation of best management practices in communities within the watershed, improved methods or enforcement of erosion control, assistance to watershed agencies for dry weather outfall surveys, and public outreach to gain cooperation of watershed residents in reducing their contributions to pollution from fertilizers, pesticides, pets, and vehicles.

Support strategies and initiatives of the District of Columbia and Montgomery County to reduce storm flow volumes into Rock Creek and its tributaries. Examples could include installing surface or underground storm water detention and storage ponds, and the use of permeable materials for parking lots and road surfaces.

Geologic Resources – Current laws and policies require that the following condition be achieved in the park for geologic resources, which include soils.

Desired Condition	Source
Natural soil resources and processes function in as natural a condition as possible, except where special management considerations are allowable under policy. Areas of special management considerations are determined through management zoning decisions in this draft general management plan.	Rock Creek Park enabling legislation NPS <i>Management Policies</i>
Soils classified by the U.S. Department of Agriculture, Natural Resources Conservation Service as prime or unique farmland soils are retained.	Council on Environmental Quality 1980 memorandum on prime and unique farmlands

PURPOSE AND NEED FOR ACTION

Soil resources in some portions of the park are adversely affected by accelerated erosion, compaction, and deposition caused by human activities. The National Park Service will take the following kinds of actions to comply with legal and policy requirements related to geologic resources.

Survey areas of the park with soil resource problems and take actions appropriate to the management zone to prevent further artificial erosion, compaction, or deposition and to restore original contours, as practical.

Avoid disturbance of prime farmland soils. These include Chillum silt loam on 0 to 8 percent slopes and Glenelg Loam on 0 to 8 percent slopes.

Participate in interagency efforts to reduce erosion from accelerated runoff and stream-flows in conformance with “Water Resources,” above.

Apply effective best management practices to problem soil erosion and compaction areas in a manner that stops or minimizes erosion, restores soil productivity, and re-established or sustains a self-perpetuating vegetative cover.

Native Species – Current laws and policies require that the following conditions be achieved in the park.

Desired Condition	Source
Federal- and state-listed threatened or endangered species and their habitats are protected and sustained.	Endangered Species Act and equivalent state protective legislation <i>NPS Management Policies</i>
Populations of native plant and animal species function in as natural a condition as possible except where special management considerations are warranted. Areas of special management considerations are determined through management zoning decisions in this draft general management plan.	Rock Creek Park enabling legislation <i>NPS Management Policies</i>
Native species populations that have been severely reduced in or extirpated from the park are restored where feasible and sustainable.	Rock Creek Park enabling legislation <i>NPS Management Policies</i>
Invasive species are reduced in numbers and area, or are eliminated from the natural areas of the park.	<i>NPS Management Policies</i>

Rock Creek Park represents one of the oldest and largest protected areas of natural vegetation in the region. Despite its small size, the capability of the park to sustain native species is valuable. The National Park Service will take the following kinds of actions to comply with legal and policy requirements related to native species.

Implement measures to protect the federally endangered Hays spring amphipod and the rare Kenk’s groundwater amphipod and their habitats. These actions include, but are not limited to

protecting springs and seeps known to contain these species from disturbance

protecting the watersheds immediately upgradient from such springs and seeps from earth moving, pollution, or changes in groundwater supply or hydrology

developing a management plan for the continued protection of the amphipods, including an assessment of recharge areas for amphipod sites and a monitoring strategy

informing the public about the presence and value of groundwater amphipods in the park without disclosing site-specific information that could increase the risks from illegal collection or disturbance

Initiate and maintain measures to protect plant and animal species listed as rare (both currently and in the future) by Maryland or Virginia. These measures include, but are not limited to,

protecting the habitats known to contain these species from disturbances such as pollution, changes in hydrology, visitor uses, mowing or maintenance activities, and earth moving or trail construction

developing a management plan for the continued protection of these rare species on park lands, including regular monitoring of populations, assessing current or potential threats, implementing mitigation approved for their protection, and continuing limitations on providing information regarding their locations

Inventory the plants and animals in the park. Use the inventory as a baseline against which to regularly monitor the distribution and condition of selected species, including indicators of ecosystem condition and diversity, rare or protected species, and invasive non-native species. Modify management plans to be more effective, based on monitoring results.

Monitor native species that are capable of creating resource problems, such as overgrazing associated with over-population of white-tailed deer. If unacceptable levels of habitat degradation are indicated, implement humane measures to control the animal population.

Support research that contributes to management knowledge of native species.

Implement measures to restore native species and natural habitats. In particular, protect and restore natural aquatic and floodplain habitats in the park where they can be sustained, including freshwater springs and ephemeral wetlands.

Review park fishing regulations and revise fish management as appropriate to support native fish populations.

Continue to participate in regional ecosystem-level undertakings to restore native species, such as the Chesapeake Bay Program effort to restore migratory fish to Rock Creek. Facilitate implementation of the Woodrow Wilson Bridge mitigation project, which will remove or mitigate nine man-made obstructions to fish migration in Rock Creek, including the Peirce Mill dam, fords, and sewerline crossings.

PURPOSE AND NEED FOR ACTION

Manage vegetation in accordance with *Management Policies* (NPS 2001b). In natural zones, manage vegetation exclusively for native plant species. In other management zones, use native species to the maximum extent possible. Where non-native species are justified within cultural resource zones, limit these plantings to non-aggressive species.

Control or eliminate invasive plants and animals, exotic diseases, and pest species where there is a reasonable expectation of success and sustainability. Base control efforts on the potential threat to

legally protected or uncommon native species and habitats

visitor health or safety

scenic and esthetic quality

common native species and habitats

Provide interpretive and educational programs on preservation of native species for visitors and for residents neighboring the park boundary. Subjects could include low-impact landscaping, control of domestic animals, and avoidance of boundary encroachments, and could be presented through such forums as workshops and newsletters.

Fire Management – Current laws and policies require that the following conditions be achieved in the park.

Desired Condition	Source
All wildfires are suppressed or controlled as soon as possible.	NPS <i>Management Policies</i>

The deciduous forests of Rock Creek Park are relatively moist, and fires do not play a major role in maintaining the native vegetation. An average of only two woodland fires occur in the park each year, with most burning less than an acre. Most fires are human-caused, rather than from natural ignition sources. Wildfires in the park usually are not intense and consume only fallen leaves and duff. Barriers such as streams, mowed fields, roads, and trails usually limit the spread of fires.

Large wildfires in the park, if they were to occur, could pose a threat to residences and commercial development adjoining the park and would produce unacceptable levels of smoke pollution. To prevent these types of fires, the National Park Service will take the following kinds of actions to comply with fire management legal and policy requirements.

Suppress all wildfires as quickly as possible.

Maintain a cooperative agreement with the Washington, D.C. fire department for wildfire suppression in the park.

Management fires, or prescribed burns, would be used sparingly if at all and only on a case-by-case basis.

Cultural Resource Management Requirements. Categories included in cultural resource management requirements are archeological resources, historic structures and cultural landscapes, and collections.

Archeological Resources – Current laws and policies require that the following conditions be achieved in the park.

Desired Condition	Source
Archeological sites are identified and inventoried, and their significance is determined and documented.	National Historic Preservation Act Executive Order 11593
Archeological sites are protected in an undisturbed condition unless it is determined through formal processes that disturbance or natural deterioration is unavoidable.	Archeological and Historic Preservation Act Archeological Resources Protection Act
In those cases where disturbance or deterioration is unavoidable, the site may be professionally documented and salvaged.	<i>Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i> (1992) Programmatic Memorandum of Agreement among the National Park Service, Advisory Council on Historic Preservation, and National Council of State Historic Preservation Officers (1995) <i>NPS Management Policies</i>

The archeological sites in the park have not been systematically surveyed or inventoried. Precise information about the location, characteristics, significance, and condition of the majority of archeological resources in the park is lacking, and impacts are difficult to measure. The National Park Service will take the following kinds of actions to meet legal and policy requirements related to archeological sites.

Survey and inventory archeological resources and document their significance.

Treat all archeological resources as eligible for listing on the National Register of Historic Places (NRHP) pending the opinion of the District of Columbia State Historic Preservation Officer (DCSHPO) and a formal determination by the Keeper of the National Register as to their significance.

Protect all archeological resources determined eligible for listing or listed on the NRHP. If disturbance to such resources is unavoidable, conduct formal consultation with the Advisory Council on Historic Preservation (ACHP) and DCSHPO in accordance with the National Historic Preservation Act.

Historic Structures and Cultural Landscapes – Current laws and policies require that the following conditions be achieved in the park for historic properties, such as buildings, structures, roads, trails, and cultural landscapes.

Desired Condition	Source
Historic structures and cultural landscapes are inventoried and their significance and integrity are evaluated under National Register criteria.	National Historic Preservation Act Executive Order 11593 Archeological and Historic Preservation Act
The qualities of historic properties that contribute to their actual listing or their eligibility for listing on the National Register of Historic Places are protected in accordance with the Secretary of the Interior's standards, unless it is determined through a formal process that disturbance or natural deterioration is unavoidable.	Standards for the Treatment of Historic Properties (Secretary of the Interior 1996) Programmatic Memorandum of Agreement among the National Park Service, Advisory Council on Historic Preservation, and National Council of State Historic Preservation Officers (1995) <i>NPS Management Policies</i>

Many of the historic structures and cultural landscapes in Rock Creek Park exhibit deterioration that has resulted from a lack of systematic preservation. The National Park Service will take the following kinds of actions to meet legal and policy requirements related to historic properties.

Complete a survey, inventory, and evaluation of historic properties under National Register criteria.

Analyze the design elements, such as materials, colors, shape, massing, scale, architectural details, and site details, of historic structures and cultural landscapes in the park and parkway. These could include such features as bridges, trails, roads and intersections, curbing, signs, picnic tables, and parkway embayments. Use this information to guide rehabilitation and maintenance of sites and structures and to ensure that future park structures are compatible with the historic character in design and materials.

Submit the inventory and evaluation results to the DCSHPO and the Keeper of the National Register with recommendations for eligibility to the National Register.

Determine the appropriate level of preservation for each historic property formally determined to be eligible for listing or actually listed on the National Register, subject to the Secretary of the Interior's standards.

Implement and maintain the appropriate level of preservation for such properties.

Collections – Current laws and policies require that the following conditions be achieved in Rock Creek Park.

Desired Condition	Source
All museum objects and manuscripts are identified and inventoried, and their significance is determined and documented.	National Historic Preservation Act American Indian Religious Freedom Act
The qualities that contribute to the significance of collections are protected in accordance with established standards.	Archeological and Historic Preservation Act Archeological Resources Protection Act Native American Graves Protection and Repatriation Act NPS <i>Management Policies</i>

The Rock Creek Park museum collections are at risk. Improper storage and lack of adequate security and fire protection at facilities where the collections are housed threaten their safety and integrity. Portions of the archeological and historical collections are not yet cataloged and need to be consolidated in one location. The National Park Service will take the following kinds of actions to meet legal and policy requirements related to collections.

Inventory and catalog all of the park's museum collection in accordance with standards outlined in the *Manual for Museums* (NPS, Lewis 1976).

Develop and implement a collection management program according to NPS standards to guide protection, conservation, and use of museum objects.

Visitor Experience and Park Use Requirements. Current laws and policies require that the following conditions be achieved in Rock Creek Park.

Desired Condition	Source
Visitor and employee safety and health are protected.	NPS <i>Management Policies</i>
Visitors understand and appreciate park values and resources and have the information necessary to adapt to the park environments. Visitors have opportunities to enjoy the park in ways that leave park resources unimpaired for future generations.	NPS Organic Act Rock Creek Park enabling legislation NPS <i>Management Policies</i>
Park recreational uses are promoted and regulated. Basic visitor needs are met in keeping with the park purposes.	NPS Organic Act Rock Creek Park enabling legislation Title 36 of the Code of Federal Regulations NPS <i>Management Policies</i>

Desired Condition	Source
To the extent feasible, facilities, programs, and services in the park are accessible to and usable by all people, including those with disabilities.	Americans with Disabilities Act Architectural Barriers Act Rehabilitation Act <i>NPS Management Policies</i>

Regulations governing visitor use and behavior in units of the national park system are contained in Title 36 of the U.S. Code of Federal Regulations (36 CFR). These regulations have force of law and include a variety of use limitations, such as limits on commercial activities. The following two regulations are especially pertinent to planning for Rock Creek Park because of issues raised by the public during scoping.

Pets must be crated, caged, restrained on a leash (6 feet long or less), or otherwise physically confined at all times (36 CFR 2.15).

Bicycles are prohibited except on roads, parking areas, and designated routes (36 CFR 4.30).

The National Park Service will take the following kinds of actions to meet legal and policy requirements related to visitor experience and park use.

Provide opportunities for visitors to understand, appreciate, and enjoy the park.

Ensure that all park programs and facilities are accessible to the extent feasible.

Continue to enforce the regulations in 36 CFR.

These laws, regulations, and policies leave room for judgment regarding the best mix of types and levels of visitor use activities, programs, and facilities. The alternatives evaluated in this draft general management plan represent four approaches to visitor experience and park use.

Special Use Management Requirements. Special uses refer to the use of park and parkway lands for non-park purposes. Current laws and policies require that the following conditions be achieved in the park and parkway with regard to the management of special uses.

Desired Condition	Source
Park resources or public enjoyment of the park are not denigrated by nonconforming uses.	Telecommunications Act 16 United States Code (USC) 5
Only telecommunication structures that do not jeopardize the park's mission and resources may be permitted within the park.	16 USC 79 23 USC 317 36 CFR 14
No new nonconforming use or rights-of-way are permitted through the park without specific statutory authority and approval by the director of the National Park Service or his representative and only if there is no practicable alternative to such use of NPS lands.	<i>NPS Management Policies</i> Director's Order 53A, Wireless Telecommunications

Rock Creek Park has ongoing special use concerns associated with the presence of sanitary and storm sewerlines within the park, including the antiquated, combined sanitary and storm water sewers that discharge raw sewage into Piney Branch and Rock Creek in association with storm events. The water resource section describes the types of actions that the National Park Service will take to meet legal and policy requirements related to sewers.

A more recent special use management issue at Rock Creek Park involves locating telecommunications infrastructure inside the park. The Telecommunications Act of 1996 directs all federal agencies to assist in achieving a seamless telecommunications system throughout the nation by accommodating requests from telecommunication companies for the use of property, rights-of-way, and easements to the extent allowable under the agency's mission. However, the National Park Service is legally obligated to issue right-of-way permits only for those requests for which there is no feasible and prudent alternative and will not result in a derogation of the resources, values, and purposes for which the park was established (*RM-53 Special Park Uses, Rights-of-Way, Wireless Telecommunications Facilities*, Appendix 6, Exhibit 6, page A6-51).

Actions Outside of the Park. Rock Creek Park and the Rock Creek and Potomac Parkway include only part of the natural resources, cultural sites, and scenic vistas of the Rock Creek valley. As a result, actions by others in the watershed can affect park resources and visitor experiences. Similarly, NPS activities may have impacts outside of the park's boundaries. Therefore, service-wide mandates and policies recognize the need for the superintendent and other park staff to be involved with actions outside of the park. This includes working with the city, other public agencies, and landowners to address park integrity concerns and deal with issues relating to the protection and enhancement of resources, even when the resources are outside of the park.

Desired Condition	Source
Resources outside of the park are managed in such a way that the park will be safeguarded.	NPS Organic Act Redwood Amendment to the General Authorities Act
The National Park Service works cooperatively with others to anticipate, avoid, and resolve potential conflicts and address mutual interests.	NPS <i>Management Policies</i>

Examples of this type of participation were described in the "Air Quality" and "Water Resources" sections. Other actions could include, but would not be limited to, the following.

Supporting the establishment of land use agreements and easements to ensure green space.

Monitoring the park boundaries and working with the city and landowners to ensure that private developments do not encroach on the park or have visual impact.

Working with the city to control stray and feral pets that can prey on native wildlife or be hit by cars, and to educate citizens on the importance of animal control.

Planning projects so that noise and visual effects within the park are minimized and perceptions of solitude are enhanced.

Providing alternate transportation modes so that visitors can arrive at the park by means other than privately owned, motorized vehicles.

Improving visitor management so that special events at facilities such as the tennis stadium and the Carter Barron Amphitheater do not adversely affect traffic in surrounding neighborhoods for extended periods.

PLANNING OPPORTUNITIES AND ISSUES

The previous section summarized major legal and policy requirements for Rock Creek Park. This section identifies the decisions that need to be made through the general management planning process and summarizes the resources and other values that are at stake (impact topics).

Decision Points

This section identifies the major resource condition and visitor experience issues that need to be addressed in the general management plan.

A variety of issues and concerns were identified by the public, park staff, and other agencies during scoping for this general management plan. Comments were solicited at public meetings, through planning newsletters, and on the park web site and telephone hotline. Additional information on issues identification is provided in the “Consultation and Coordination” section.

Some of the comments were outside of the scope of this general management plan. Some concerns identified during scoping are already prescribed by law, regulation, or policy, or would be in violation of such requirements. These types of issues were discussed in the preceding section entitled “Servicewide Mandates and Policies.” Because they are mandatory requirements, these matters are not subject to decision in this general management plan.

Other issues identified during scoping were at an operational or developmental level of detail. Such issues are most appropriately associated with the park’s 5-year strategic plan or annual implementation plans. Those plans will be based on the resource conditions and visitor experiences to be achieved in Rock Creek Park that are established in the final general management plan. However, some of the concepts behind operational or developmental issues were incorporated into the alternatives considered in this draft general management plan.

Scoping demonstrated that there is much that the public likes about the park. Indeed, one of the most common comments during scoping was that the park is fine just the way it is today. In particular, people want the traditional character of the park to continue. However, without management, some park uses that could adversely affect the park-like atmosphere, particularly commuter traffic, are projected to increase. In addition, continued use of some of the park’s historic resources as administration offices may affect their historic integrity. It has been proposed that these structures may be more appropriate for interpretive or educational activities, and that administrative functions could be performed more efficiently from modern office facilities.

Based on public comments and agency concerns, three major resource condition and visitor experience issues, called “decision points,” were identified. This draft general management plan focuses on addressing these decision points, which are identified below.

How Should Traffic Be Managed in Rock Creek Park and on the Rock Creek and Potomac Parkway

The most controversial issue to be resolved by this plan involves establishing the appropriate level of through-traffic in Rock Creek Park and on the Rock Creek and Potomac Parkway. As discussed in the section on park history and use, some people feel that park values are compromised by heavy, high-speed traffic, and that nonmotorized recreation should be promoted by closing parts of Beach Drive and other park roads to automobiles. Others believe that the current mix of recreational and nonrecreational traffic is appropriate and that automobile access through the park enhances the quality of life in the region.

The Rock Creek and Potomac Parkway was established as a scenic travel corridor for the city. In contrast, until 1966 Beach Drive was used primarily as an internal park touring road to provide recreational access to the valley. When the Zoo Tunnel opened in 1966, it made the corridor consisting of Beach Drive and the Rock Creek and Potomac Parkway into a preferred commuting route for many residents living north of the park. As a result, weekday traffic averages 9,000 vehicles per day on parts of Beach Drive, while 55,000 vehicles typically use the busiest portion of the Rock Creek and Potomac Parkway.

Traffic models predict that the volume of regional traffic will increase substantially by the year 2020. Projections indicate that without additional management, traffic on portions of Beach Drive could more than double by 2020 (Robert Peccia & Associates 1997). This traffic growth would further compromise the suitability of park roads for recreational uses.

Another traffic-related issue on Beach Drive involves the effort to provide a continuous, regional bicycle trail system that is free of automobile traffic. Paved trails and roads in Rock Creek Park and along the parkway connect with the Rock Creek Trail and the Capital Crescent Trail both to the north and south and to the C and O Canal Trail to the south. However, the paved recreation trail system through Rock Creek valley is discontinuous. Recreationists must use portions of Beach Drive in the upper valley between the Maryland boundary and Bingham Drive and in the gorge section between Joyce Road and Broad Branch Road.

Both of these road sections are constricted, winding, and have narrow or no shoulders. During the weekend, both sections are closed to automobiles, except for the short section between West Beach Drive and Wise Road. During the week, they carry heavy automobile traffic.

A 1980 study by the National Park Service recommended constructing a separate paved trail through the upper valley and gorge sections (NPS 1980). During the current planning effort, NPS landscape architects, resource specialists, and a civil engineer reconnoitered these sections. They also consulted with representatives of the U.S. Fish and Wildlife Service and the District of Columbia State Historic Preservation Officer about potential effects on endangered species and properties listed on the National Register of Historic Places. The team concluded that there are no acceptable routes along these sections to construct a separate, paved trail. Impediments include potential damage to endangered species habitat, wetlands, National Register properties, and other environmental obstacles that would be extremely difficult and expensive to mitigate. They concluded that the only way to provide a continuous recreational trail through the valley would be to permanently close sections of Beach Drive to automobiles.

The following statement in regard to through-traffic routes in national parks is included in Section 9.2.1.2.1 of *Management Policies* (NPS 2001b):

Where a determination is made that existing through-traffic routes have adverse impacts on park resources and values, the Service will work with the appropriate government authorities to minimize the impacts, or to have the traffic flow re-routed over an alternative route. Where feasible and practicable, roads that are no longer needed will be closed or removed, and the area restored to a natural condition.

During scoping, there was strong disagreement among the public about whether some sections of Beach Drive should be permanently closed and about the degree to which through-traffic should be controlled in the park and on the parkway. To address these views, four approaches for managing through-traffic are analyzed in this draft general management plan and environmental impact statement.

What are the Most Appropriate Levels of Service and Locations for Visitor Interpretation and Education in the Park?

This draft general management plan and environmental impact statement analyzes two alternatives regarding the appropriate levels of service and locations for visitor interpretation and education. Factors that led to the development of these alternatives include the following.

It currently is difficult to reach the thousands of visitors who recreate each week in the Rock Creek valley, especially those who are unfamiliar with the park and its broader purposes. Visitors to Rock Creek Park often do not receive any initial orientation to the park, what it has to offer, or how to safely and appropriately experience park resources. As a result, many visitors do not even know that they are in a national park.

Interpretive programming in the park has evolved without the benefit of an interpretive plan. This has resulted in a hodgepodge of stories and facts that may not help the public understand the significance of the park and its resources. Many opportunities for reaching the public in the park are unrealized.

Over the past two decades, recreational visitation to Rock Creek Park has almost doubled while the park's visitor services have been severely reduced because of funding limitations. This has resulted in a substantial decline in visitation to the main interpretive sites in the park, which consist of the nature center and planetarium, and Peirce Mill.

Some facilities are in need of attention. Some exhibits need updating, and the buildings are open only on a limited schedule because of a lack of personnel.

In spite of current limitations, Rock Creek Park has a long tradition of providing a wide range of visitor interpretive and educational services. Its location in the nation's capital makes the park particularly well suited to provide a large, richly diverse population with resource interpretation and educational opportunities and to serve as an ambassador for the national park idea.

It is important within this draft general management plan to establish the desired resource condition and visitor experience for interpretation and education with regard both to location and levels of service. Two approaches for responding to this issue were included in this document.

What Are the Most Appropriate Locations to Support Administration and Operations Functions with Respect to Minimizing Resource Disturbance?

The following have been identified with regard to the use of the existing infrastructure to support administration and operations of the park.

Some administrative and operations functions are housed in historic structures. Examples include the location of the park headquarters in the Peirce-Klingbe Mansion and the U.S. Park Police station in the Lodge House on Beach Drive. These uses may not effectively protect the historic resources of the park or efficiently serve administrative and operational needs. They also preclude the ability to use these historic resources for educational or interpretive purposes.

Spaces available for office, work, and storage activities are insufficient.

Aging buildings have been repeatedly adapted beyond their original capacities to accommodate growing functions and required personnel.

Facility expansion is necessary for administration and operations functions in the park to keep pace with increasing visitor use and resource protection demands.

Two alternatives for supporting administration and operations functions are analyzed in this draft general management plan and environmental impact statement. This document also analyzes two options for the U.S. Park Police station.

Alternatives or Actions Eliminated from Further Study

Several actions that were suggested by the public are not incorporated into this draft general management plan. This section identifies those actions and provides rationale of why they were not included.

As described in the “Consultation and Coordination” section, the identification of issues and development of alternatives evolved through a series of meetings and other opportunities for public input. However, not all of the actions suggested by the public are included in this draft general management plan.

As the National Park Service learned more about public concerns, the alternatives were modified to more effectively address the public’s comments. This evolution resulted in the elimination from further consideration of some possible management actions that were proposed early in the process. Other actions raised by the public were not considered because they

were not feasible

are already prescribed by law, regulation, or policy

would be in violation of laws, regulations, or policies

This section briefly describes each of these actions and the basis for excluding them from this draft general management plan.

Other Traffic-Related Actions. Throughout the planning process, the public commented on the management of park roads more than any other topic. Many of their suggestions were incorporated into the four alternatives that are analyzed in this draft general management plan. However, many other suggestions on how to manage traffic were not addressed in any of the alternatives. The most common suggestions, and the reasons they were not included, are described below.

Suggestion: The National Park Service should charge a fee for entering the park or levy a toll for using Beach Drive or the Rock Creek and Potomac Parkway to discourage commuter traffic.

Response: Both of these approaches would be impractical because of logistical problems associated with the more than 20 road entrances to Rock Creek Park. Charging an entrance fee or a toll high enough to discourage commuter traffic could also discourage recreational use, which would be contrary to the purpose of the park.

Suggestion: Close Beach Drive to all private automobiles and use the road as a mass transit route for city buses.

Response: This option would duplicate mass transit services already available in the area via Metrobus and the Metro Rail Red and Green lines and would require reengineering of Beach Drive and other park roads to accommodate buses.

Suggestion: Extend the twice-daily lane reversals (one-way traffic) on the Rock Creek and Potomac Parkway to include Beach Drive. Variants on this idea included

- closing one lane of Beach Drive to automobiles and using it for bicycles
- reversing the one-way flow against the general flow of commuter traffic

Response: These measures were considered unsafe and technically impractical.

Suggestion: Close Beach Drive to motorized traffic overnight, from the end of the evening rush hour to the start of the next morning rush hour.

Response. Visitors are not allowed in the park after dark except in a vehicle. Therefore, this approach would effectively close large segments of the park after dark.

Suggestion: Allow motorized traffic on portions of Beach Drive only during weekday rush hours. Close these segments to motorized traffic twice daily, during the middle of the workday and overnight. Vary the time of weekday closures seasonally or based on time of sunrise and sunset.

Response: This approach had multiple disadvantages that led to its exclusion.

It would double the burden for barrier placement and removal on the U.S. Park Police, compared to any other alternative.

It would restrict the access throughout the park that visitors with limited mobility currently have during weekday evenings and would eliminate driving for pleasure except during rush hours.

Variable opening and closing times would be confusing and difficult to implement.

Like the preceding suggestion, it would effectively close large segments of the park after dark.

Suggestion: During the summer, close segments of Beach Drive to motorized traffic on weekdays after rush hour to promote nonmotorized recreation during the long evenings.

Response: The National Park Service analyzed sunset during the summer, including the effect of daylight savings time. The analysis showed that during the longest evenings of the year, at the end of June and beginning of July, the sun sets at 8:37 P.M. Rush hour through Rock Creek Park ends about 7:00 P.M. This would provide recreationists with little more than an hour and a half to enter the park after rush hour, reach their destinations, and exit from the park to avoid being stranded in the unlit park after the dark. By the end of August, there would be only 40 minutes between the end of rush hour and sunset. This action would also have most of the detriments of the preceding suggestion. Therefore, it was not incorporated into any of the alternatives.

In summary, many variations for traffic management and road closure were considered based on scoping comments. The range of traffic management alternatives addressed in this draft general management plan was selected because they are technically feasible, are most responsive to public concerns, and are consistent with NPS policies and authorities.

Remove Community Gardens, the Rock Creek Horse Center, and the Rock Creek Park Golf Course. Public comments during early scoping indicated that some people wanted to see the park managed more as a natural preserve, with a substantial reduction in developed areas within the park. Therefore, in newsletter 3, the National Park Service responded to this general direction with preliminary alternative scenarios 3 and 4. Both of these scenarios included removal of community garden sites in the park and eliminated the Rock Creek Horse Center as a public facility. Preliminary alternative scenario 4 also included removal of the Rock Creek Park Golf Course.

Once these provisions were incorporated into preliminary alternative scenarios, few people supported removal of these established uses. Public response to newsletter 3 overwhelmingly supported continuing these facilities as appropriate to the recreational purposes of the park.

The National Park Service agrees that these facilities and activities are legitimate recreational uses in the park. The golf course and the boarding stables are established concession operations under the provisions of 36 CFR, which assures concessionaires of a reasonable opportunity to make a profit so long as the operations are appropriate to the purposes of the park.

There is no apparent substantive public desire to discontinue these established uses. Therefore, elimination of these facilities was dropped from further consideration in the range of alternatives evaluated in detail in this draft general management plan.

Construct a Continuous Paved Recreation Trail in Rock Creek Valley. As mentioned previously in the section entitled “Decision Points,” the planning team for this general management plan considered the installation of a paved recreation trail parallel to Beach Drive through the entire length of the Rock Creek valley in the park. Such a trail was proposed previously in a bicycle trail study for the park (NPS 1980) and in *Paved Recreation Trails of the National Capital Region* (NPS 1990c).

For the segments between the Maryland boundary and Bingham Drive, and between Joyce Road and Broad Branch Road, major environmental obstacles were encountered that would be difficult and expensive to mitigate. As described below, each of the suggestions for installing a trail through the corridor had substantial drawbacks.

Suggestion: Convert the streamside segment of the Blackhorse Trail south of Joyce Road to a paved recreation trail and construct a parallel horse trail to replace the Blackhorse Trail.

Response: This action could adversely affect sites known to support the federally endangered Hays spring amphipod. It would be questionable whether mitigation could ensure the long-term protection of amphipod populations. Water quality problems may result from increased disturbance related to increased visitor activity and potential increases in sedimentation and nutrient pollution from changes in horse use. Other effects could include the loss of trees, increased erosion, higher visibility, and substantial cutting.

Suggestion: Provide a paved recreation trail immediately beside or within the shoulder of Beach Drive.

Response: Representatives of the District of Columbia State Historic Preservation Officer advised that this approach would adversely affect the original design of the road, which is a central feature of the park and contributes to its listing on the National Register. They also advised that construction of a paved trail segment and new bridge alongside or within view of the Boulder Bridge, which is individually listed on the National Register, would be considered an adverse effect on the historic setting.

Suggestion: Construct a new paved trail north of Bingham Drive, and particularly north of picnic grove 10.

Response: This approach would require extensive clearing of mature forests, extensive side-slope cutting, and/or the occupation and modification of wetlands and floodplains along Rock Creek. None of these impacts is considered acceptable by the National Park Service.

The analysis also considered whether user numbers and use patterns would justify the construction of a paved recreation trail through sensitive environmental areas. Currently, weekday use of the existing paved recreation trail north of Tilden Street is relatively low, typically ranging from 20 to 35 users per hour. During weekends, when most recreation occurs in the park and sections of Beach Drive are closed to automobiles, the same segments support 185 to 300 users per hour, a 5- to 15-fold increase. It is anticipated that the segments between the Maryland boundary and Bingham Drive, and between Joyce Road and Broad Branch Road show similar use patterns, and that most recreation needs are already being met by the weekend road closures in these areas.

Alternate paved routes through the park already exist for weekday recreational riders. These include the Oregon Avenue trail – Bingham Road trail, Military Road trail, and Glover-Ross Roads. However, the National Park Service recognizes that these routes may be less attractive to some recreationists because they are less level and less direct than a trail through the Rock Creek valley.

Even if the parallel trail were constructed, Beach Drive would continue to be the most level and direct route through the park. As a result, many bicycle commuters probably would continue to use Beach Drive as the most expedient route for their weekday commute.

This analysis indicated that the construction of two new segments of paved recreation trail in the valley north of Broad Branch Road would pose unacceptable risks to park natural and cultural resources, and that the trail would provide relatively little public benefit. Therefore, the construction of the paved recreation trail was eliminated from further analysis.

Construct Additional Facilities for Organized Sports. Preliminary alternative scenario 2 in newsletter 3 included developing facilities for organized sports at Military Field and, potentially, at other sites in the park. While there is considerable demand for sports facilities in the district, few members of the public who commented on the preliminary alternatives supported constructing additional sports facilities in Rock Creek Park. Many people opposed such a move as inappropriate to the purposes of the park as a natural landscape.

The Brightwood area of Rock Creek Park is currently dedicated to fields supporting organized sports. Sport facilities also are provided elsewhere in the region, including NPS sites such as Fort Reno, West Potomac Park, and Anacostia Park.

Based on these considerations, the National Park Service determined that additional facilities for organized sports are neither desired nor needed at Rock Creek Park. Construction of such facilities was eliminated from further consideration in this draft general management plan.

Construct a New U.S. Park Police Substation at Brightwood. It was proposed that a new D-3 substation for the U.S. Park Police be constructed in the Brightwood area of the park near the Tennis Stadium. However, as stated in the section “Geographic Area Covered by the General Management Plan,” management of the Brightwood area was established in the *Final Environmental Impact Statement, Tennis Stadium, Rock Creek Park* (NPS 1995b) and is beyond the scope of from this general management plan.

The Brightwood area is to remain unchanged because of the decisions made in the Tennis Stadium plan. While the Brightwood site is attractive for a U.S. Park Police substation from an access and engineering perspective, constructing the D-3 substation there would be perceived as adversely affecting the neighbors’ quality of life and would probably be strongly opposed by much of the public.

Allow Bicycling off Currently Permitted Roads and Trails. Bicycles are restricted to roads, parking areas, and designated paved trails in the park. This management approach is specified in the Rock Creek Park Compendium, section 1.5 (a)(2), and is consistent with Title 36 of the U.S. Code of Federal Regulations, Sections 1.5 and 4.30 (36 CFR 1.5 and 4.30).

During public scoping meetings, a few members of the public recommended that mountain biking be allowed on unpaved hiking and bridle trails in Rock Creek Park. This was eliminated from consideration by the National Park Service because such use is

contrary to park and NPS management policies

inconsistent with protecting the park's natural, cultural, and esthetic values and resources

a potential threat to the safety of visitors who use the trails for established purposes such as hiking and horseback riding

Allowing Pets to Run Unleashed in the Park. NPS policy, federal regulations (36 CFR 2.15), and park regulations (Rock Creek Park Compendium section 2.15) require all pets to be restrained on a leash or otherwise physically confined in national parks. The National Park Service reviewed requests for allowing running-at-large dogs within Rock Creek Park, but rejected this as inappropriate for the following reasons.

The activity would be in conflict with NPS policy and regulations.

Unrestrained pets constitute a threat to park resources, particularly the native wildlife species that are recognized as important by the park's establishing legislation.

Unrestrained pets could cause personal injury or annoyance to other visitors and conflicts with appropriate visitor uses and experiences.

Closures for Special Events. NPS policy, federal regulations, and park regulations provide the authority to implement selected closures for special events such as Rock Creek Park Day, Earth Day, and Bike Day. Roads and other facilities also can be closed for maintenance needs, even during rush hours. This authority will remain in effect, regardless of the management actions included in this general management plan. Therefore, there was no need to incorporate special closures into any of the alternatives.

Impact Topics - Resources and Values at Stake in the Planning Process

This section identifies the resources and values (impact topics) that were considered in the planning process. It also identifies the criteria used to establish the relevance of each impact topic to long-term planning for the park and parkway.

Specific resources and values, called impact topics, were used to focus the planning process and the assessment of potential consequences of the alternatives. The following four criteria were used to determine major resources and values for Rock Creek Park:

Resources cited in the establishing legislation for the park or the parkway. The establishing legislation for the park and parkway is provided in appendix A. Summaries of rele-

vant elements of the legislation are provided in the sections entitled “Park History and Use Relative to Management Planning” and “Park Mission.”

Resources critical to maintaining the significance and character of the park. The significance statements in the “Park Mission” section describe the defining features of Rock Creek Park and the Rock Creek and Potomac Parkway that were used to establish the resources that are critical to maintaining their significance and character.

Resources recognized as important by laws or regulations. A list of many of the important congressional acts and executive orders that guide the management of all NPS facilities, including this park, is provided in appendix B. A summary of some of the relevant elements of these acts and orders is provided in the section entitled “Servicewide Mandates and Policies.”

Values of concern to the public during scoping for the general management plan. The National Park Service conducted an extensive public information and scoping program to acquire input from the public and from other agencies. This helped the National Park Service develop alternatives and identify resources and values that are of high interest in the park.

Table 1 shows the criteria that helped establish each impact topic as a resource or value at stake in the planning process. Brief descriptions of each impact topic relative to these criteria are provided below. More detailed descriptions of each impact topic and the effects of each of the management alternatives are described in the “Environmental Analysis” section.

Natural Resources. A major reason for establishing Rock Creek Park as a national park was to protect its natural resources and its abundant natural scenery. Natural resources in Rock Creek Park are particularly valuable because the park is located within a large metropolitan area and they are remnant vestiges of the region’s natural heritage.

TABLE 1: CRITERIA USED TO ESTABLISH EACH IMPACT TOPIC

Impact Topic	Cited in Establishing Legislation	Critical to Park Significance and Character	Recognized by Laws or Regulations	Cited during Scoping
Air quality			✓	✓
Rock Creek and its tributaries	✓	✓	✓	✓
Wetlands and floodplains			✓	✓
Deciduous forests	✓	✓	✓	✓
Protected and rare species			✓	✓
Other native wildlife	✓	✓	✓	✓
Cultural resources		✓	✓	✓
Traditional park character and visitor experience	✓	✓		✓
Local and regional transportation				✓
Community character				✓

Air Quality – Compliance with air quality standards is mandated by the Clean Air Act. In addition, during scoping members of the public expressed concerns over threats to air quality from heavy automobile traffic in the park. Poor air quality has the potential to adversely affect biological resources, cultural resources, and visitor health and experience.

Rock Creek and Its Tributaries – The establishing congressional acts for Rock Creek Park, the Rock Creek and Potomac Parkway, and tributary additions to the park specify that Rock Creek and its tributaries are essential resources to be protected. In addition, there are many federal laws and executive orders that protect the nation's waters.

As the park's name suggests, Rock Creek is fundamental to the park's character. The undeveloped creek and its tributaries represent a unique natural resource in the Washington, D.C. metropolitan area. While surrounding urbanization adversely affects water quality and quantity, the creek and its tributaries continue to be inhabited by a variety of native fish and other aquatic species. The importance of Rock Creek as a central scenic and recreational attraction in the park was reaffirmed by numerous scoping comments.

Wetlands and Floodplains – Wetlands and floodplains were included in the discussion of water resources in the "Servicewide Mandates and Policies" section. Wetlands and floodplains are regulated by legislation and executive orders because of their value as biological resources and their contributions to flood control.

In the park, wetlands are located along the Rock Creek valley floor and at seeps along the lower slopes of the valley walls and along tributaries. Some of the floodplains along Rock Creek and major tributaries support riparian vegetation. Both of these sensitive areas have unusually large numbers of plant and animal species and contribute more to the biological diversity of the park than their small sizes would suggest.

Deciduous Forests – The establishing legislation for Rock Creek Park identifies "timber . . . in [its] natural condition" as an essential resource of the park. The National Park Service interprets this in an ecological context to mean not individual trees but the interrelated plants and animals that make up the forest biotic community. Forest stands are also an essential component of the scenic quality of the park that is mentioned in the establishing legislation.

The statements of park and parkway significance include several references to the forest's contribution to the park's character. The forest is an essential component of the landscape and scenic qualities of the park, buffers the park from the surrounding urbanization, and provides protected habitat for wildlife and plant species. During scoping, many comments were received about the value of the forests and the need to maintain them.

Protected and Rare Species – The protection of rare species and their habitats is mandated by the Endangered Species Act and *Management Policies 2001* (NPS 2001b). Rock Creek Park provides habitat for at least one federally endangered animal, at least one rare animal, and approximately 40 native plant species that are protected by Maryland and Virginia laws. (The District of Columbia does not have laws addressing native plant species protection.)

Other Native Wildlife – The 1916 legislation establishing the National Park Service directs the service to conserve wildlife in all national parks and to provide for public enjoyment of the same while leaving them unimpaired for future generations. Similarly, the legislation for Rock Creek Park states that the park will “provide for the preservation from injury or spoliation of all . . . animals . . . within said park, and their retention in their natural condition.”

In Rock Creek Park, native animals represent an important resource that captures the public’s attention. During scoping, many people commented on the value of seeing wildlife in the park, especially in contrast to the surrounding urban environment. White-tailed deer, the largest and most conspicuous mammal, was most frequently mentioned. Recreational birding also was identified as an important park activity during scoping.

The breeding bird census area is a 65-acre tract of forested land in the park with exceptional scientific value related to native species. Monitoring of breeding birds has occurred since 1948. The continuous record of bird populations is an important information resource for park management and also serves as an indicator of environmental health for a much larger region.

Cultural Resources. The park’s cultural resources are recognized as exceptional because they illustrate significant aspects of the historic development of the park area from prehistoric times to the present. Historic features such as the Rock Creek and Potomac Parkway, the Boulder Bridge, Fort DeRussy, historic park roads, and the Peirce Mill complex help define the significance and character of the park and are protected by multiple legislative, executive, and NPS actions. These and other cultural features were cited in scoping as contributing to the appealing ambiance of the park.

Visitor and Community Values. In reviewing the range of comments received during scoping, the following topics appear to capture the values expressed by the public.

Traditional Park Character and Visitor Experience – The park and parkway significance statements presented near the beginning of this general management plan reflect the importance of the overall visitor experience in defining the park’s character. Frequent scoping comments were associated with protecting the park’s and parkway’s naturalness, not only for the ecological resources, but for its restorative value to people as a place of natural beauty and decompression from the nearby urban setting. Scenery, opportunities to learn about the natural world, natural quiet, and the ability to hear natural sounds were often highlighted. Despite contention about other management approaches, there was near unanimity that the natural character should be preserved and protected from disturbance from additional development.

People also emphasized the traditional, familiar character of the park and parkway’s recreational features and their desire to see this character maintained. While many said that park roads and trails need repair and improved maintenance, the public appeared to be mostly satisfied with the range of recreational opportunities offered by the park. Other comments emphasized

the value of the park as a gathering place for family and friends

the importance of shared experiences such as walking, picnicking, golfing, horseback riding, gardening, attending concerts, and participating in other activities that have come to be associated with the park

individual and physically challenging recreation such as biking, jogging, in-line skating, and hiking

the historic design of structures as a contributing factor to the esthetic character of the park and the parkway

Local and Regional Transportation – Local and regional transportation was identified as an impact topic primarily because of scoping.

Some members of the public identified the value of park roads, the parkway, and paved trails as a transportation corridor. The Washington, D.C. metropolitan area has a serious traffic congestion problem, and scoping comments pointed out that park roads and paved trails are part of the regional transportation system. Other people stressed that any actions to change automobile use within the park or on the parkway would affect traffic patterns on surrounding city streets. They value the parkway and park roads because of their contribution to moving automobiles through the city.

Other people value the park roads and paved trails corridor for the opportunity to promote non-motorized and less polluting alternatives, especially bicycle use, to single-occupancy automobiles. These people want to see a reduction in automobile traffic in the park and parkway not only to improve chances for auto-free recreation, but also as part of a larger effort to reduce dependency on personal automobile use in the region.

Community Character – Community character was identified as an impact topic primarily because of scoping. Many of those who commented during scoping described the park and parkway as a major asset to the quality of life in the Washington, D.C. metropolitan area. The scenic and recreational amenities are much appreciated, and many said that proximity and access to the park and parkway were important factors in their choice of neighborhoods. A number of people who identified themselves as park neighbors also stressed that their neighborhoods could be affected by changes in park or parkway management, particularly in regard to transportation management.

Impact Topics Dismissed from Further Consideration

This section describes why some impact topics that commonly are considered during the planning process were not relevant to the development of a draft general management plan for Rock Creek Park and the Rock Creek and Potomac Parkway.

Thirteen impact topics that must be considered in any environmental impact statement prepared by the National Park Service are identified on page of 53 *Director's Order #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making* (NPS 2001a). All but four of those topics are included in the impact topics that were established as being applicable to Rock Creek Park and the Rock Creek and Potomac Parkway, based on the four criteria discussed in the previous section and summarized in Table 1. The four topics, and justification for not considering them further, are provided below.

Prime and Unique Farmlands. Guidelines from the Council on Environmental Quality (1980) require federal agencies to assess the effects of their actions on soils classified by the Natural Resources Conservation Service (NRCS) as prime or unique farmlands. A letter from the NRCS state soil scientist for Maryland provided the following information (NRCS 1998).

There are no soils classified as unique within Rock Creek Park.

Two soil mapping units classified as prime farmland soils are within park boundaries.

Chillum silt loam on 0 to 8 percent slopes makes up much of the soil in the Rock Creek and Pinehurst Branch floodplains in the northern end of the park, is found along the tributary parallel to Joyce Road, and is located in isolated lenses in the floodplain of Rock Creek along the parkway.

Glenelg Loam on 0 to 8 percent slopes is located on seven isolated ridge tops around the park.

Neither of the prime farmland soil types within the park would be disturbed by management prescriptions proposed in any of the alternatives. They would continue to be generally protected within the park, and there would be no new impact on the regional production of food, forage, or fiber crops from any of the alternatives under consideration. Therefore, prime farmland soils were dropped from further consideration as an impact topic.

Environmental Justice. Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations. Although public scoping comments for Rock Creek Park did not identify this as a concern, the traffic analysis in the environmental impact statement evaluated this type of potential effect. This analysis is included in the transportation analysis rather than a separate section on environmental justice.

The traffic management provisions of Alternatives A, C, and D may divert some traffic that currently uses park roads onto nearby streets. Therefore, the transportation analysis for each alternative examined anticipated changes in traffic in minority and low-income neighborhoods versus nonminority and higher-income neighborhoods to determine if disproportionately high adverse effects would occur to disadvantaged populations.

Sacred Sites. There are no Native American sacred sites within the area covered by this general management plan. Therefore, this is not a relevant impact topic for Rock Creek Park and the Rock Creek and Potomac Parkway.

Indian Trust Resources. There are no Indian trust resources or assets within the area covered by this general management plan. Therefore, this is not a relevant impact topic for Rock Creek Park and the Rock Creek and Potomac Parkway.

Connected, Cumulative, and Similar Actions

This section identifies actions that are direct or indirect consequence of the alternatives. It also identifies actions that could have an additive impact on environmental resources, regardless of

who takes the actions or whether they occurred in the past, are current, or will occur in the reasonably foreseeable future.

Cooperating Agencies. This draft general management plan and environmental impact statement does not have any cooperating agency involvement, as defined in the Council on Environmental Quality's (1978) "Regulations for Implementing Procedural Provisions of the National Environmental Policy Act." However, numerous agencies were consulted in the preparation of this document, as described in the "Consultation and Coordination" section.

Connected and Similar Actions. Connected and similar actions for this draft general management plan refer to other planning projects in the vicinity. Appendix C describes the relationship of the general management plan to other planning in the area of Rock Creek Park and the Rock Creek and Potomac Parkway. It includes other NPS planning efforts, and planning currently in force or underway by entities other than the National Park Service.

Cumulative Actions. Cumulative actions are actions by the National Park Service or others that may have additive impacts on one or more of the resources of Rock Creek Park or the Rock Creek and Potomac Parkway. It is irrelevant whether they occurred in the past, are currently taking place, or may be planned for the reasonably foreseeable future. The actions described below were included in the cumulative impact analyses in the "Environmental Consequences" section of this general management plan and environmental impact statement.

Past Urbanization of the Washington, D.C. Area – The Washington, D.C. metropolitan area completely surrounds Rock Creek Park, so that the park in effect is an island of natural resources within an urban zone. In the area around the park, forests and fields have been replaced by street-scapes, creeks have been routed into storm sewers, and archeological and historic sites were lost during construction of the city. These past actions are included to determine the effects of park management within the larger regional setting.

Continuing Urbanization of the Rock Creek Watershed – Continuing urbanization of the Rock Creek watershed will affect several of the resources of Rock Creek Park, regardless of management actions taken by the National Park Service within the park. Watershed development will be particularly important in the consideration of effects on Rock Creek, its floodplains, and aquatic life.

Altered Transportation Patterns – In addressing the cumulative effects of altering transportation patterns through the park, the National Park Service considered incremental park changes added to regional programs, policies, and objectives. Several important transportation plans helped shape the analysis of alternatives.

The Metropolitan Washington Council of Governments (1997) *Draft Vision Document* outlines regional transportation policies, objectives, and strategies for the metropolitan area. The policies support an intermodal transportation system that includes rail, bus, ride sharing, bicycle, and pedestrian improvements that reduce reliance on the single-occupant automobile.

The *Transportation Plan for the District of Columbia* (District of Columbia Government 1997b) promotes development of a transportation system that intercepts automobile traffic at the edges of the city and reduces dependency on single-occupancy vehicles. The plan also advocates the development of bicycle paths along Beach Drive and the Rock Creek and Potomac Parkway.

Similar bicycle paths are called for in the *National Capital Region Bicycle Plan* (Metropolitan Washington Council of Governments 1995).

Chesapeake Bay Program – On October 29, 1993, the National Park Service signed a memorandum of understanding with the Environmental Protection Agency and became a formal participant in the Chesapeake Bay Program. In joining the program, the Park Service agreed to contribute to the restoration, interpretation, and conservation of the many valuable resources of the Chesapeake Bay. Information on the Chesapeake Bay Program is available on the internet at <http://www.chesapeakebay.net/>. The activities of the Chesapeake Bay Program are included as cumulative actions that are considered in the impact analysis.

Fish Passage Improvements in Rock Creek – The Woodrow Wilson Bridge, which crosses the Potomac River approximately 7 miles downstream from the mouth of Rock Creek, currently is being reconstructed. Mitigation for this project includes the installation of improvements in Rock Creek to remove barriers to fish migration. These improvements will allow fish to migrate from the mouth of the creek upstream to Needwood Lake in Montgomery County, Maryland (Madaras 2001).

Modifications will be made at nine sites in Rock Creek. Construction will start in the summer of 2002 and should be completed before the start of the fish migratory season in February or March 2003. The cost will be approximately \$1.4 million, about half of which will provide for improvements at Peirce Mill Dam.

A fish bypass structure will be installed to allow fish to swim past the 8-foot-high Peirce Mill Dam. This Denil fishway will be located between the dam abutment and Beach Drive. It will provide a sloped channel with baffles at regular intervals to slow the velocity of the water and create resting pools to conserve the energy of migrating fish. Its slope and length will be designed based on the swimming ability of the migratory fish in Rock Creek (blueback herring, alewife, and American eel). The angle and velocity of the flow leaving the bypass will be designed to assist fish in finding the passage. According to the Chesapeake Bay Program website (<http://www.chesapeakebay.net>), Denil fishways are probably the most common design used in the Chesapeake Bay watershed.

Milkhouse Ford will be reconstructed so that it remains passable by automobiles, and all of its historic structures above the waterline will be retained. The existing concrete of the ford will be removed and replaced with concrete of similar color and texture that is configured to provide a flow depth and velocity that will allow the passage of fish. The abandoned sewerline on the upstream lip of the ford will be removed.

Two abandoned roadway fords in Rock Creek near the National Zoological Park will be removed. In addition, an abandoned sewerline upstream from the Boulder Bridge will be removed.

PURPOSE AND NEED FOR ACTION

Passage over four active sewerlines will be provided by installing natural-appearing pool and weir structures. Engineers examined the existing “boulder field” area of Rock Creek, which is a natural fish passage. Within this stretch, they measured flow velocities, flow depths, and sizes of openings. They then developed designs for the area immediately downstream of each sewerline that will mimic the boulder field concept and provide fish with a stair-step effect. These features will be installed below a sewerline just upstream from Boulder Bridge, a sewerline upstream from Milkhouse Ford, and two sewerlines in the vicinity of Sherrill Drive.